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UNIVERSITY OF ALBERTA

EMPLOYEE ATTITUDES AND PERCEPTIONS TOWARD THE ROLE OF EMPLOYEE FITNESS PROGRAMS

BY

ANITA MARIA WATTS (SCHNIERER)

A THESIS SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

DEPARTMENT OF PHYSICAL EDUCATION AND SPORT STUDIES

EDMONTON, ALBERTA

SPRING, 1992

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DEDICATION

To my husband Tom for his love, patience, understanding, and faith in me and my potential.

To my parents, Evelyn and Robert for teaching me to believe in myself and to finish everything I start.

ABSTRACT

The general purpose of this study was to extend the knowledge concerning the role of employee fitness programs, from the participants' perspective. Specifically, the study was designed to examine the impact of age and membership duration on the exercise motives, needs, patterns, and perceptions of employee fitness program members.

Data was collected through a questionnaire which was designed for members of the Esso Employee Fitness Centre in Calgary, Alberta. The sample consisted of 479 respondents.

Data analyses consisted of a principal components analysis and reliability analyses in order to verify internal consistency and reliability of the questionnaire items. Further analyses included frequency distributions, two way analyses of variance, Scheffe post hoc tests, and chi-squares.

Results from this study revealed that, overall the Fitness Centre played an important role in the activity patterns and lifestyles of the respondents. In addition, with respect to membership duration it was found that members' perceptions continued to be dynamic throughout an involvement period of up to ten years. Furthermore, the results did not support the notion that members of different ages varied substantially in their perceptions and attitudes toward the Fitness Centre. Therefore the variable of involvement duration was more closely related to attitudes than was the age of respondents.

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CHAPTER 1

INTRODUCTION

Over the past few decades, physical fitness has become an increasingly acceptable aspect of today's society. As Derr (1987) pointed out, "the underlying concept motivating fitness programs is that as technology has replaced physiology as the source of human productivity, our survival as a culture no longer depends on our physical ability to do hard labor" (p. 309). The fitness movement led to the increased awareness of the importance of regular physical activity. The positive physiological and psychological effects of physical fitness have been documented in a number of studies (Morgan & Goldston, 1987; Powell, 1988; Powell & Paffenbarger, 1985; Rodin & Plante, 1988).

As a result of the increased awareness of physical activity and of the physiological and psychological benefits associated with a physically active lifestyle, corporations started to respond by providing fitness opportunities for their employees. Employee fitness programs were perceived by corporations to be a way of keeping employees healthy, happy, and consequently more productive in their work. "The exponential growth of work-site health promotion programs has partially resulted from the belief that an organization

should take some responsibility for the welfare of its most valuable resource, the worker" (Gebhardt & Crump, 1990, p.262).

The general purpose of this study was to extend the knowledge concerning the perceptions of participants toward an employee fitness program. In essence, this study was designed to examine the impact of age and membership duration on the exercise motives, needs, patterns, and perceptions of employee fitness program members. The main features which this investigation attended to were:

(1) A developmental aspect which implied that adults of different ages may not necessarily have identical needs, goals, or perceptions with respect to exercise participation.

(2) A duration aspect of involvement which represented a much greater time-span than has been examined in previous employee fitness studies. Here, the involvement ranged from 1 month to 10 years in terms of membership duration.

(3) Possible interactions between age and membership duration with respect to exercise motives, needs, patterns, and perceptions.

JUSTIFICATION OF THE STUDY

Since the inception of employee fitness programs, corporations have been interested in the benefits that these

programs bring to the company. Research has indicated that employees involved in these programs have demonstrated reduced absenteeism, reduced turnover, and less stress (Baun, Bernacki, & Tsai, 1986; Shore, Prasad, & Zroback, 1989). However, little research has looked at the benefits incurred and perceived by the employee. One intention of this study was to examine the benefits and characteristics of an employee fitness program from the participants' perspective.

Once corporations commit to and invest resources in employee fitness programs, employees are encouraged to take advantage of the opportunity. For employees, it would be beneficial to take part in these programs, because of the obvious personal benefits gained by exercise. However, as Shephard (1988a) pointed out, only about half of the employees who are recruited to employee fitness programs become long-term program adherents.

As a result, exercise adherence has also become an important area of research in the corporate fitness setting. Research in this area has examined participants' reasons for initiating and maintaining physical activity. A possible phenomenon emanating from these studies is that a 'motive shift' may occur between starting an exercise program and continuing involvement in the program. Wankel (1987) found that "... new participants most frequently reported health

benefits to be their main reason for being involved in physical activity; whereas long-term participants emphasized enjoyment of the activity as their primary reason for being involved" (p. 255).

In order for employee fitness programs to be successful, it is important to know what motivates participants to initiate and maintain their involvement. Previous research pertaining to initiation and exercise maintenance within employee fitness programs has been inconsistent (Eakin, Gotay, Rademaker, & Cowell, 1988; Shephard, 1986, 1988a). Thus it is important that this information be investigated. Furthermore, as Baun & Bernacki (1988) pointed out, "exercise adherence is the most critical issue facing directors of corporate health and fitness programs" (p. 321). Adherence is an issue because employee fitness programs have a relatively fixed population from which to draw participants. The factors affecting adherence are important to employee fitness program coordinators, who by being aware of these factors, may be in a better position to provide the necessary motivators to help increase employees' involvement in the program.

Several studies have addressed long-term adherence in employee fitness programs (Conrad, 1988; Shephard, 1988a; Steinhardt & Carrier, 1989). These studies, however, have been restricted in the length of duration examined. For

example, long-term membership involvement has often consisted of periods of up to but not exceeding 2 years in duration. A unique feature of the present study is an examination of membership duration of up to 10 years. This feature permitted an investigation of periods of involvement exceeding those previously studied.

While studying the motivation of employees toward maintaining their exercise involvement, it is important to note that there are many different factors to take into account. One such factor is that all employee fitness programs deal with adults of various ages. Past research has not sufficiently examined the possibility of different motivations for adults of different ages. This study specifically investigated physical activity motives of individuals within and across several age categories spanning over four decades. Additionally, these various age categories were further controlled for membership duration. This design enabled the investigation of key interactions between participants' age and membership duration in affecting the perceived role of an employee fitness program on the lives of its members.

STATEMENT OF THE PROBLEM

The overall purpose of this study was:

> To assess the attitudes and perceptions of members of an employee fitness program toward the role of the centre in their activity lives and lifestyles.

More specifically, the subproblems were:

(1) To examine the extent to which age was related to the involvement outcomes of employee fitness program participants.

(2) To examine the extent to which membership duration was related to the involvement outcomes of employee fitness program participants.

(3) To determine the interaction effect between age and membership duration as related to participants' involvement in an employee fitness program.

(4) To examine the exercise outcomes cited by program participants in relation to the stated employee fitness program's objectives.

(5) To provide descriptive information concerning the nature of members' participation in an employee fitness program.

LIMITATIONS

This study is limited by the following factors:

(1) The reliability and validity of the questionnaire.

(2) The willingness of employees to honestly and accurately complete and return the questionnaire.

(3) The response rate of those receiving the questionnaire.

(4) The number of respondents within the various age and membership duration categories.

(5) The accuracy of the registration and membership documents provided by the company.

DELIMITATIONS

The study will be delimited as follows:

(1) To employees who were listed as members in the employee fitness program at the Esso Plaza Fitness Centre in Calgary, Alberta, as of April 30, 1991.

(2) To the selection of critical dimensions of fitness perceptions as assessed by previous researchers.

(3) To those members of the employee fitness program who responded to the questionnaire within the

specified time frame allotted after the initial distribution of the questionnaire.

(4) To the analysis of results based upon age and membership duration groupings alone and in combination. Gender differences were not examined.

DEFINITION OF TERMS

Employee Fitness Program (Corporate Fitness Program). The terms used to describe those work-site fitness programs which are administered, promoted, subsidized, or otherwise provided by a company or corporation for the sole use by regular full-time or part-time employees and their spouses, full-time contract employees, and annuitants (retirees) of that particular company.

Short-term Involvement. In this study, short-term involvement consisted of a membership duration of 1-26 months (just over 2 years). Approximately one third of the respondents were in this category.

Mid-term Involvement. Mid-term involvement was defined as membership duration ranging from 27 to 70 months (just over 2 to almost 6 years with the program). Again, approximately one third of the respondents were in this category.

Long-term Involvement. Long-term involvement for this study was defined as membership duration of 71 months and longer (just under 6 years and up to 10 years). Approximately one third of the respondents were in this category.

This research includes four major sections. The review of relevant research literature is presented in the next chapter, followed by an explanation of the methods and sample used in the study. The results and a discussion of these results are provided in Chapter Four. Finally, a brief summary, conclusions, and recommendations complete the study.

CHAPTER 2

REVIEW OF THE LITERATURE

How does a work-site employee fitness program affect the exercise patterns and lifestyles of those participants involved? This chapter will address the research literature concerning the factors which will assist in answering this question. Initially, the general topics of physical activity involvement, reasons for starting and for maintaining physical activity programs, and barriers to participation in exercise programs will be presented. These sections will be followed by the more specific issues regarding corporate fitness programs (i.e., benefits to the employer) and the recruitment and retention of participants in these programs. Furthermore, the sparse literature regarding the relationship of physical activity programs with adults of various ages will be reviewed. Finally, a brief summary of this literature overview will conclude this section.

ISSUE OF PHYSICAL ACTIVITY INVOLVEMENT

Among the major concerns facing professionals promoting physical fitness are improved methods for stimulating and sustaining participation in regular physical activity. As

noted by Godin, Shephard, & Colantonio (1986) "promotional agencies such as Participaction in Canada have succeeded in creating an awareness of the need for exercise, but all too often this realization has not been translated into action" (p. 522).

Researchers have studied physical activity and inactivity from many different perspectives yielding widespread evidence concerning the positive relationships between increased exercise behavior and improved physiological conditions. Exercise physiologists (Powell, 1988; Powell & Paffenbarger, 1985) have established research protocols which have repeatedly demonstrated how various forms of physical exercise can stimulate organic improvements, including oxygen consumption, muscular strength and endurance, flexibility, and body composition. Other health-related conditions which have been positively associated with appropriate levels of exercise are a reduction in the incidence of coronary heart disease, decreased blood pressure, prevention of osteoporosis and the risk of fracture, as well as reduced blood glucose levels (Powell, 1988).

More recently, researchers have also investigated how exercise can affect various psychological conditions. For example, Rodin and Plante (1988) reviewed and highlighted research studies which considered the

psychological consequences of exercise on non-clinical populations. They found that mood and well-being immediately improved following an exercise workout. Exercise was also associated with decreases in anxiety, depression, and stress. Furthermore, by being involved with, and being committed to an exercise program, the self-concept and self-esteem of participants were also likely to be enhanced.

In addition to Rodin and Plante's findings within non-clinical settings, Morgan and Goldston (1987) presented research evidence in the area of exercise and mental health within clinical settings. They concluded that:

> (1) Physical fitness is positively associated with mental health and well-being. (2) Exercise is associated with the reduction of stress emotions such as state anxiety.... (3) Exercise has been associated with a decreased level of mild to moderate depression and anxiety.... (4) Appropriate exercise results in reductions in various stress indices such as neuromuscular tension, resting heart rate, and some stress hormones. (5) Current clinical opinion holds that exercise has beneficial emotional effects across all ages and both sexes.... (p. 156).

The above findings raise important issues for health professionals, as exercise has been considered an increasingly viable treatment modality for various psychological problems (Morgan & Goldston, 1987).

Not only has exercise been linked to physiological and psychological conditions, but "considerable interest currently exists in how physical activity indirectly

influences health behaviors such as smoking and overeating" (Blair, Jacobs, & Powell, 1985, p. 172). In a review of the literature pertaining to the association of exercise and physical activity to other health behaviors, Blair et al. (1985) noted that active individuals may be more likely to engage in some forms of preventive health behaviors. This statement was further clarified by results from The 1988 Campbell's Survey on Well-Being in Canada (Stephens & Craig, 1990), which revealed that: (1) active Canadians were more likely to limit their fat intake, as well as follow the Canada's Food Guide; (2) the level of activity was inversely related to the probability of being a smoker; and (3) less active individuals were at a greater risk to obesity. In addition, Stephens & Craig (1990) found that highly active individuals rated their health higher than the moderate and the less active participants. Rodin and Plante (1988) also suggested that individuals who engage in exercise may gain an increased sense of power, self-determination, and improved self image from the fact that they view themselves as physically fit. "As individuals feel more efficacious and better about themselves, they are willing to exercise more and to persist in exercise regimens" (Rodin & Plante, 1988, p. 133). Furthermore, Powell and Paffenbarger (1985), stated that:

> In response to the growing body of evidence that regular physical activity produces substantial

> physical and emotional benefits, the Public Health Service specified "Physical Fitness and Exercise" as 1 of the 15 areas of greatest importance for improving the health of the public (p. 118).

Yet, despite an increased awareness of the benefits of vigorous exercise and the risks of sedentary living, "only one third of Canadians age 10 and older can be classified as active in their leisure time" (Stephens & Craig, 1990, p. 6). This poses major health-related problems for society since "...for the 10 leading causes of death, lifestyle is estimated to account for 53% of the years of potential life lost before age 65" (Powell, 1988, p.31).

In order to increase the number of people involved in regular and meaningful physical fitness programs, it is necessary to determine what attracts individuals to exercise and what enhances their adherence to an exercise regimen. The various reasons that explain why people maintain their exercise programs, and what they perceive as barriers to participating in exercise programs, have a major impact on adherence patterns. These reasons will be examined in the following sections.

REASONS FOR STARTING AND MAINTAINING PHYSICAL ACTIVITY PROGRAMS

Individuals become involved in various forms of physical activity for a number of different reasons. Often, the motives which prompted the initiation of an activity are not always the reasons for continuing the involvement. This

section will review recent findings regarding motives for starting and maintaining physical activity programs.

Godin and Shephard (1983) investigated the models which have recently been developed to facilitate our understanding of the factors influencing voluntary health-related behavior. Their findings revealed that researchers disagree with respect to "(1) the variables influencing behavior, and (2) the rules linking the variables in a causal sequence leading to behavior" (Godin & Shephard, 1983, p. 110). Due to the lack of unanimity regarding behavioral influences, there is a need to determine accurately the reasons explaining regular involvement in physical activity programs.

In an attempt to verify the behavioral influences regarding regular involvement in physical activity, Dishman, Sallis, and Orenstein (1985) reviewed the scientific literature pertaining to variables that may determine the probability of exercising. Common personal characteristics which are frequent among exercisers are: past program participation, high risk for coronary heart disease, perceived good health, self-motivation, behavioral skills, enjoyment of the activity, higher education, and expected personal health benefit. In addition, environmental influences including spousal support, perceived available time, access to facilities, social reinforcement, and

incentives were also highly correlated with the probability of exercising. Although these characteristics may be useful in detecting a potential exerciser, the question is whether or not these characteristics could also play a role in the actual initiation and maintenance of a regular exercise program. As Godin and Shephard (1983) note, "physical fitness promoters must recognize that physical fitness is not exclusively a biological manifestation but is rather the joint outcome of socio-economic, cultural, behavioral and environmental factors" (p. 111). Therefore, for physical fitness professionals, it is crucial to determine what factors affect the initiation of an exercise program, and whether or not these factors vary in importance over time (i.e., long-term involvement). A clue to the dynamic nature of such factors has been provided by Oldridge (1984). He concluded that "factors influencing adherence to exercise are different from those influencing recruitment" (p. 483).

Wankel (1987) stated that it is important to distinguish between reasons for initial involvement in an exercise program and those related to continued involvement. In his findings, he noted that initial involvement is often linked to the desire to obtain some health-related benefits, whereas the enjoyment of a program, its convenience, and social support are factors affecting continued involvement. Furthermore, Wankel (1988) suggested that surveys have

consistently shown that people participate in physical activity for two main reasons: health benefits and enjoyment. The priority allocated to these two reasons would depend upon individuals' preferences. Therefore, the focus of different programs would attract different individuals according to these priorities.

Essentially, according to the research, health benefits provide the initial motivation for becoming involved in an exercise program. Once that involvement has been maintained for a period of time, the reasons for continuing may shift to enjoyment of the process or to a sense of belonging to the program. Yet, little is known about this 'motive shift' from health benefits to enjoyment, its universality, or at what point it occurs in the stage of exercise involvement.

According to Wankel (1988), "if involvement is to be long-term, then, the program must be 'fun', satisfying, or enjoyable...what constitutes 'fun' is very much an individual thing" (p. 383). If this reported shift from health benefits to enjoyment could be better understood, fitness promoters would be able to identify what the "fun" aspects of fitness programs entail, and thus, provide an exercise environment conducive to motivating long-term adherence patterns. The key is to determine what positively influences the habitual exerciser. As Wankel (1985) states:

> If progress is to be made in making exercise a more enjoyable experience for all participants,

> information is needed on how participants' goals and program factors are related to the quality of the experience (i.e., enjoyment) (p. 276).

In order to run successful activity programs, it is not only critical to determine the factors that influence initiation and long-term involvement in these programs, but also to understand the perceived barriers from being involved in any type of activity program. The following section investigates these barriers.

BARRIERS TO PARTICIPATION

In order to be involved in an exercise program on a long-term basis, individuals must not only enjoy the experience, but also be able to overcome barriers which they feel prevent or limit their regular participation (Wankel, 1988). Thus, understanding perceived barriers to participation should allow fitness professionals to address and enhance more effectively the participation of clients in any given exercise program.

In 1988, the Campbell's Survey documented what many people perceived as barriers to their physical activity patterns (Stephens & Craig, 1990). The most commonly reported barrier was lack of time due to work or school commitments. Self-discipline, motivation, lack of energy, family pressures, and lack of interest were ranked second as substantial obstacles to participation. Furthermore,

factors such as costly programs and lack of partners were also considered as barriers.

In an emerging development, many of these barriers have been addressed by corporations that have adopted work-site fitness programs in response to employee and company needs. By providing convenient, pleasant, and accessible facilities, as well as quality fitness programs at low costs to the employee, corporations allow employees to take advantage of the opportunity to exercise during the work day. These work-site facilities were provided as an incentive for the employee to become more physically active. In turn, the corporations also benefit from employee participation in these programs. The following section will review how corporate fitness programs originated as well as present the potential benefits gained by both employer and employee.

DEVELOPMENT AND BACKGROUND OF CORPORATE FITNESS/ACTIVITY PROGRAMS

> The concept of corporate fitness had its origins at the Institute for Working Physiology in Stockholm, Sweden, in the nineteenth century. The motivating force was not the health of workers but how much could be extracted from them (Day & Cantu, 1987, p. 31).

In North America, corporate fitness and lifestyle programs became more prevalent as a result of the recommendations set out at the 1974 Canadian Conference on Employee Physical Fitness (Collis, 1977). As Collis noted, the documents

presented at this conference emphasized the importance of physical activity with respect to the improvement of physiological and psychological states of employees, as well as encouraging them to adopt healthy lifestyles. Iona Campagnolo, Minister of State for Fitness and Amateur Sport at the time, expressed her enthusiasm regarding the potential of introducing physical activity into the work place. She believed that, eventually, financial and human benefits would make this venture a profitable one (Collis, 1977).

Since high levels of physical activity are not normally required for everyday occupational tasks, the need for employee fitness programs were not perceived as necessary until recently. In the past two decades, "more than 50,000 firms in the United States and up to 1,000 companies in Canada have become involved in some aspect of employee fitness programming" (Cox, 1987, p. 338). "Many corporations have spent millions of dollars on very elaborate facilities to encourage their employees to become physically fit and healthy" (Durkin, 1987, p. 9). Other companies which lack the space or the finances to provide company owned work-site facilities have tapped into existing facilities and programs by subsidizing memberships to local fitness clubs.

Since the inception of these employee programs, researchers have found that optimal levels of physical fitness have been associated with: lower rates of absenteeism and lower health care claim reimbursements (Baun, Bernacki, & Tsai, 1986; Shore et al., 1989); a reduction in employee turnover (Tsai, Baun, & Bernacki, 1987); and fewer stress symptoms (Shore et al., 1989). These benefits for corporations have been linked to benefits for employees such as improving overall physical fitness, reducing cardiovascular risk factors, increasing personal health awareness, and improving self-concept, positive attitudes toward the company, and worker relationships (Cox, 1987).

The potential results of employee fitness programs may not directly increase company profits. However, "organizations consider physical fitness/activity programs to be an inexpensive benefit that produces a number of returns for the company" (Falkenberg, 1990, p. 1). In addition to the above mentioned benefits for the company, other anticipated payoffs which employee fitness programs may lead to are:

> (a) a mechanism for attracting competent individuals to join the firm; (b) improved company morale and loyalty; (c) a reflection of the firm's social responsibility for the nonwork aspects of the employees' lives; and (d) an indirect positive effect on productivity (Howard & Mikalachki, 1979, p. 191).

In the past few years, corporations have seen a greater need to be more concerned with the health and well-being of employees. This could be a result of the above mentioned payoffs which in the future may become more significant due to projected changes in human resources. Cox (1987) indicated that these future changes could include: a decrease in the growth of the 1980s work force; a decline in the number of young workers because of demographic changes; the demands from the labor force for competitive recruiting strategies; and employees' adaptation to retirement being assisted by their involvement in work-site fitness programs. The decreased work force could potentially create an improved job market for skilled employees. Companies are aware of this and are already showing concern over the quality of life of the employees. This was demonstrated in a recent study (Smith & Katzman, 1990) which investigated the motivations for companies to sponsor fitness programs. Of the 168 firms surveyed; 76% were concerned about increasing employee satisfaction, 72% were concerned with improving morale, and 67% were concerned with reducing employee health-related costs.

To date, most of the exploratory research relative to employee fitness programs has focused on the benefits incurred by the employer. From this perspective, Day and Cantu (1987) noted that the purpose of employee fitness

programs is to reduce human error and increase efficiency, not to make the employee work harder and faster. This is supplementary, but not fundamental, to the actual rationale often presented for initiating employee fitness programs, that of employee wellness and satisfaction. If the concern is for the health and well-being of the employee, then studies need to focus on the employee benefits of a corporate fitness program. Conrad (1988) supports this observation with the following statement, "...far fewer studies have focused on the social organization and effects of the programs themselves and virtually none has examined work-site health promotion from the perspective of the employee participants" (p. 545). Past attempts to evaluate these programs have primarily taken on the form of "program evaluation questionnaires" which have been designed to generate information regarding the needs of participants in relation to the specific programs offered. From a programming perspective, this information is vital for providing programs which will be successful with respect to the number of employees actually participating and/or using the service. However, what was overlooked in these program evaluations was an examination of the impact these programs have on the health and lifestyles of the employees. If the company is genuinely concerned for its employees' health and ongoing involvement, then, determining how these programs

have actually interacted to affect the employees' lifestyles would be beneficial.

There is a need for research to investigate the role employee fitness centres have played on the lifestyles of employees. This research would help to assess employees' perceptions of the benefits and impact of such programs, as well as help employers to examine the effectiveness of these programs. The success of these centres greatly depends on employees' incentives to continue participating in the programs offered. Therefore, once the employee is active, it is also important that the centre offers the necessary ingredients to retain their interests and their participation. The following section deals with the issue of recruiting and retaining participants in employee fitness programs.

RECRUITMENT AND RETENTION

From the previous discussion, it would seem apparent that, to the corporation, the benefits of a work-site fitness program should outweigh the costs. However, this would be contingent upon an adequate proportion of the employee population taking advantage of the program for a significant duration.

> [Unfortunately] despite occasional overly optimistic claims, no more than 20% of eligible workers are usually recruited to a corporate fitness program, and only about half of those who

> are recruited become long-term program adherents (Shephard, 1988a, p. 305).

This can pose a major problem for the fitness program as, unlike commercial health clubs, "work-site health and fitness programs can only draw their membership from a relatively small, fixed population" (Baun & Bernacki, 1988, p. 321).

> Therefore, to be successful these programs must aim both at retaining current exercising employees as regular exercisers and for growth, the addition of new employees and hard core non-exercisers into the exercising group (Baun & Bernacki, 1988, p. 321).

In view of the above arguments, it is important to determine which factors enhance initial recruitment and ongoing retention of participants in a corporate fitness program.

"Recruitment to fitness programs has been the topic of considerably less research than has the issue of program outcome" (Eakin et al., p. 634). Of the studies that have investigated recruitment, some have noted that most subjects joined in order to improve their health (Shephard, 1986; Eakin et al., 1988), and that most recruits were already habitual exercisers (Shephard, 1988a). In contrast, Eakin et al. (1988) found evidence that a company fitness centre attracted many employees who were physically inactive prior to enrollment. These inconsistent findings, combined with the lack of research in the area of recruitment, further support the need to study motivation among participants in corporate fitness programs.

Steinhardt and Carrier (1989) noted that there are two issues which need to be addressed once an employee joins a fitness program. The first issue deals with motivating the employee to adhere to the program initially. The second issue consists of developing specific strategies to enhance the chances that employees will maintain the new exercise behavior.

Very little research has directly or indirectly questioned participants concerning their reasons for maintaining their participation in regular exercise programs in corporate settings. Of the studies which involved corporate fitness populations, the majority have focused on issues such as reasons for discontinuing program participation or reasons for not initiating membership. The following, however, are examples of some of the findings covered in studies which have looked at the factors influencing employees to become active in corporate fitness programs.

The General Foods Study looked at employees' reasons for persisting with the company's fitness program 20 months after the initiation. It was found that those who had persisted favored the convenience of the facility and expressed satisfaction with the fitness personnel (Shephard, 1986).

In a study conducted at the Canada Life Assurance Company in Toronto, the success of the employee fitness program was attributed to several factors: enthusiastic support of management; health orientation of the company; predominance of white-collar employees; and a high-profile experimental program (Shephard, 1988a).

Conrad (1988) interviewed participants from a Medical Technology Company which had a work-site facility. His main objective was to determine the reason(s) for participation and participants' goals. This study took place in the second year of the program. The major reasons given for participation included: staying in shape to look good, to feel fit, and to develop stamina; to maintain or lose weight; or because of the convenient location. Furthermore, participants mentioned that reduced stress was an important by-product of their regular participation. From the employees' perspective, the work-site facility was viewed as a significant company benefit.

Rudnicki (1986) investigated the effects of participation in an employee fitness program upon long-term involvement. In his study, the reasons for re-enrolling in the program were:

(1) Health related (51%), which included aspects such as: to keep fit and healthy; to gain energy; for rehabilitation; and to control weight and stress.

(2) Enjoyment (21%), which included responses measuring: fun; enjoyment; social variables; and acquired skills.

(3) Programmatic factors (28%), which included: the convenience and organization of the facility; the quality of the program; and the quality of the instructors.

Durkin (1987) studied some of the factors which influenced employees to initiate and maintain their involvement in a health and fitness program at the Boeing Company in Seattle, Washington. Two of the main factors which he investigated were: (1) Health Reasons - to gain knowledge of nutrition & diet, to decrease or stop smoking & alcohol, to reduce stress & blood pressure, to decrease body weight, and to improve personal health; and (2) Social Factors - ability to exercise on one's own or with a group, persuasion by personal friends, work associates, &/or spouse, and individual awareness of the need to improve health and fitness level. The findings revealed that, with respect to health, the most influential factors perceived by respondents for maintaining their participation in the employee fitness program consisted of improving personal health through exercise and decreasing body weight. With respect to the social category, the most important reasons were individual awareness of the need to improve your health and fitness level and the ability to exercise on one's own.

Finally, a recent study completed by Steinhardt and Carrier (1989) investigated early and continued participation in physical activity programs at Conoco Inc. in Texas. The authors focused on three specific areas:

> (1) social-environmental factors including social support and convenience; (2) physical-behavioral factors including percent fat, body weight, cardiorespiratory fitness, youth participation and recent participation in physical activity; (3) psychological factors including self-motivation, attitudinal commitment, attraction to physical activity, and estimation of physical ability (p. 118).

Responses to a questionnaire and other information were gathered at the start of the program (one month) and after continued participation (six months). The overall findings showed that attitudinal commitment and perceived convenience of the centre discriminated among adherers and nonadherers at six months. Steinhardt and Carrier (1989) suggested that it is necessary to pay greater attention to the reasons why individuals choose to participate or not to participate in work-site fitness programs.

From the preceding studies, it is apparent that a need exists to further research the recruitment and retention patterns within employee fitness programs. Although as Shephard (1986) mentioned, preliminary indications are that corporate fitness program participants exhibit motivation patterns for persisting that are similar to those of other populations (i.e., community based fitness programs), there

is still a need to systematically review the factors which are associated with exercise adherence within the corporate fitness setting. Typically, these programs are more closely monitored than many recreation programs, therefore participants receive special personal attention which may not be experienced in other more public programs. It is important to find out how much of an effect this personal attention has on exercise maintenance. As outlined earlier, there is also a need for studying the possibility of a motivational shift in the reasons for being involved in an employee fitness program. Furthermore, the limited number of research studies on the successful participation in corporate fitness programs (Conrad, 1988; Rudnicki, 1986; Shephard, 1986, 1988a; Steinhardt & Carrier, 1989) has focused on participation motives and patterns of membership durations of two years or less. Such studies have provided valuable information but are confined to shorter duration ranges. This void in the research will be addressed in this study.

ADULT AGE CATEGORIES

In the past, studies of exercise recruitment and retention have generally assumed the similarity of characteristics among adult exercisers. In other words, the various ages of members and how these may interact with their exercise attitudes, experiences, and behaviors have

never been considered. There has been little or no age differentiation made between groups of exercising adults in corporate settings despite the fact that an age range of over 40 years may in fact exist between employees of organizations.

In a study of participants in an employee fitness program (Shephard, 1988b), the researcher assessed subjects as appearing younger than their actual chronological age. Other studies have documented the beneficial role of physical activity on those of more advanced age.

> The positive relationship throughout the life cycle between participation in physical activity and physical and mental health is well documented. Many of the known training effects associated with participation in regular programs of physical activity and exercise can be extrapolated to the older adult - even among individuals who have been inactive for many years (Ostrow, 1982, p. 112).

Despite these findings, there are certain age-related constraints and roles which people experience and feel compelled to follow. This could potentially result in exercise participation rates decreasing with age. "There are a number of psychological and sociological explanations, which might account for the decline in activity with age, but these are incomplete" (Wankel, 1988, p. 376).

It is possible that there are differences in the exercise perceptions of individuals across various age categories, however the literature in this area is inadequate. In addition, the age factor has not been

examined within the setting of employee fitness programs. The fact that participation in employee fitness programs involves adults of various ages, reinforces the need to look at the reasons for exercise involvement across different age categories.

SUMMARY

Since the introduction of industrialization and urbanization, the relatively sedentary occupations and lifestyle patterns within society have resulted in the need to find methods to stimulate and sustain individuals' participation in regular physical activity. Corporations have recently addressed this issue by providing convenient, financially accessible work-site fitness programs. These programs have been viewed as beneficial to both employer and employee. However, with respect to employees' benefits, this review of literature has suggested that the research is incomplete. In order to optimize the use of work-site fitness programs, it is necessary to determine participants' perceptions, over short-term and long-term membership duration, toward the role of these programs on their exercise lives and lifestyles. Furthermore, it is important to assess if these effects are different across various age groups. This research will address the above issues and provide some insight into some of the research gaps identified.

CHAPTER 3

METHODS AND PROCEDURES

The purpose of this study was to identify the factors that influence employee participation in a work-site employee fitness program, as well as to determine the relationship between these factors and employees' age and membership duration. This chapter describes the methods and procedures followed to achieve this purpose.

PRELIMINARY PROCEDURES

The Department of Physical Education and Sport Studies at the University of Alberta was contacted by Esso Resources to provide consultative services, including research, for their Calgary office Employee Fitness Centre. The present research project was undertaken as a result of Esso Resources' inquiry. A formal request to conduct this study was then forwarded to the manager of the Esso Employee Fitness Centre, followed shortly by a meeting, in January, 1991, in order to discuss the logistics of the study. At that time, a complete computer generated list of the membership demographics up to August 30, 1990 was made available. This list, as well as a manually produced list including memberships up to April 30, 1991, were used to

establish age and membership duration categories for the study. A second meeting in Calgary, in February, 1991, was arranged to tour the Fitness Centre and meet the staff.

SUBJECTS

The population of this study consisted of adults who were members of the Esso Plaza Fitness Centre (Fitness Centre) in Calgary, Alberta, as of April 30, 1991. A total of 950 members between the ages of 20 - 70 years were identified as potential subjects during the initial phases of the study. However, an extensive personnel downsizing within the company, concurrent with this study, resulted in the loss of approximately 74 potential subjects. Consequently, the number of members who could have been subjects in this study was reduced to 876 employees. As of May, 1991, the total Esso employee population was 2326. Therefore, at the time of this study, 38% of the Esso employee population were Fitness Centre members. This percentage was greater than the 20% which Shephard (1988a) reported to be typical for recruitment into employee fitness programs.

Membership in the Fitness Centre was open to all Esso employees, employee spouses, and retired employees. Memberships ranged from 1 month to 10 years in duration, and were subject to the following classifications: regular full-time or part-time Esso employee (REG); contract

employed by Esso (CON); spouse of a regular employee (SPO); and retired Esso employees (annuitants; ANN).

DESCRIPTION OF THE STUDY SITE

Esso Resources initiated an employee health and fitness program in 1981, located in a 13,000 square foot facility in downtown Calgary, Alberta. The facility was open Monday through Friday from 6:15 a.m. to 6:30 p.m.. Members paid a nominal monthly fee through pay-roll deduction. The Fitness Centre provided exercise clothing, towels, and lockers for use within the centre. Various health screening applications, a personal fitness assessment, and fitness centre orientations were mandatory for all new members. The major aim of the program was:

> to provide a supportive environment that allows and encourages ESSO/IMPERIAL employees to maximize their potential for adopting a more healthy and active personal lifestyle (Youldon, Henry, & Speirs, 1986, p.i).

The stated program objectives were:

(1) To promote good health and low risk lifestyle patterns among ESSO/IMPERIAL employees.

(2) To provide educational opportunities for ESSO/IMPERIAL employees in the areas of physical fitness and lifestyle patterns.

(3) To provide a physical fitness program which includes personal enjoyment in addition to physical fitness improvement/maintenance.

(4) To provide friendly, supportive, and professional leadership that motivates and encourages ESSO/IMPERIAL employees to adopt a more active personal lifestyle.

(5) To provide and maintain a safe and clean exercise facility which is conducive to maximizing employees' use of the centre.

(6) To provide all necessary screening precautions to ensure that the health and safety of employee participants is maximized (Youldon et al., 1986, p.iii & iv).

In order to meet the above aims and objectives, the following services and programs were among those offered through the Fitness Centre:

Fitness Assessments. These were mandatory upon becoming a member. As well, they were offered to all interested members on an annual basis. Assessments included the measurement of cardiovascular fitness, body composition, muscular strength, endurance and flexibility, as well as exercise prescription and counselling.

Individual Exercise Programs. These were developed, upon request, for individual members and were designed to meet participants' specific fitness and lifestyle goals (e.g., accommodate participants' choice of exercise).

Group Exercise Classes. Fitness leaders provided guided group exercise classes which included various activities such as aerobics, walking, body toning, and others. These were scheduled at various times during the day.

Exercise Area Supervision. During all hours of operation, a fitness consultant was present and available to guide participants with their exercise programs.

Incentive Programs. Various competitions and special programs were designed to motivate participants in achieving their fitness goals.

Special Events. In conjunction with special theme months (e.g., Heart Month) or other occasions (e.g., Canada Fitweek), special programs or activities were organized to keep the fun in fitness.

In addition to these numerous programs, members were contacted by the Fitness Centre staff on a monthly or bimonthly basis in order to follow-up on their exercise programs and provide the opportunity for extra individual guidance.

In order to support the Fitness Centre programs and the participants' exercise needs, the following facilities and equipment were available:

* group exercise area
* weight training machines and free weights
* 80 meter indoor running track
* stationary exercise bicycles
* rowing machines
* cross-country ski simulators
* treadmill
* stretching area
* health and fitness resource library.

DEVELOPMENT OF THE INSTRUMENT

Data collection for the study was conducted through a self-administered questionnaire developed by the author. The instrument was specifically designed to investigate the factors which influence Esso employees to become members of the centre and to participate in the centre's programs. As well, the questionnaire focused on determining the self-perceived effects of Fitness Centre programs on the lifestyle of members involved. The instrument was also designed to evaluate the degree to which the first four of the stated centre objectives were perceived by the members as being achieved.

Initially, the Fitness Centre staff had planned to distribute a program evaluation survey similar to one that had been sent to all Esso employees in 1988 (See Appendix A). The main purpose for this follow-up was to assess which programs and features of the centre the employees viewed as beneficial to their exercise participation. However, Esso decided that in order to prevent unnecessary overlap, this present study would incorporate a revision of some of the key questions found in the 1988 questionnaire. These items were added at the end of the questionnaire used for this study. The questionnaire, therefore, contained two parts (See Appendix B).

Part 1 consisted of 25 items which employ[illegible] a 5-point Likert scale similar to the type commonly used in attitude

inventories (Safrit & Wood, 1989; Thomas & Nelson, 1985). The reasons for using this design in this study stemmed from the following: (1) "a principle advantage of scaled responses is that it permits a wider choice of expression than items such as 'always', 'never', 'yes', or 'no'" (Thomas & Nelson, 1985, p. 296); (2) "the five, seven, or more intervals help increase the reliability of the instrument" (Thomas & Nelson, 1985, p. 296); (3) some items taken from other instruments such as the Commitment to Physical Activity Instrument (Nielsen, 1985) used this format and had shown good reliability and validity; and (4) the ease of completion and reduced time needed to complete an instrument of this magnitude may enhance response rates.

The first section of the questionnaire involved subjects responding to statements concerning their perceptions of the role of the Fitness Centre in their exercise lives. The 25 items were categorized into five subgroups (of five items each) which had been identified by previous research (Conrad, 1988; Cox, 1987; Dishman et al., 1985; Durkin, 1987; Godin & Shephard, 1983; Oldridge, 1984; Rodin & Plante, 1988; Rudnicki, 1986; Shephard, 1986, 1988a; Shore et al., 1989; Steinhardt & Carrier, 1989; Wankel, 1985, 1987, 1988) as important factors in exercise motivation. In addition, the five subgroups also closely paralleled the stated Fitness Centre objectives. These

subgroups reflected the dimensions of: Psychological Factors; Social Support; Enjoyment; Health/Fitness; and Knowledge. Ideas for four of the items (Appendix B - #1, #6, #8, & #22) originated from the Physical Activity Enjoyment Scale (Kendzierski & DeCarlo, 1991), while four other items (Appendix B - #3, #13, #14, & #17) were close variations of the Commitment to Physical Activity Instrument (Nielsen, 1985). The remaining 17 items were developed specifically for this study.

Once the specific subgroups were defined, a list of items, about 10-15 per subgroup, were formulated. Through consultation with two researchers in the area of activity psychology, the number of items was reduced to five for each dimension. These were chosen and refined for use in a pilot study. The items were worded positively or negatively, included strong and mild statements, and were scrambled to prevent biased order effects or response sets due to predictable patterns.

The format for part 2 of the questionnaire included some Likert scale items, as well as other closed ended questions. Part 2 also requested information regarding demographics of the participants, their reasons for exercising at the centre, logistics specific to the use of the centre, data regarding their participation in activities

away from the centre, and specific lifestyle-related questions.

This second section was partially designed by using modified questions from the 1988 Esso Fitness Centre questionnaire. There were also items added in order to verify the consistency of responses to some of the questions in part 1. Many of the items in part 2 were of common interest to the centre staff as well as to the researcher for this study.

A crucial item on the instrument was the request for the subjects' centre code number. This code was used to identify each participant in order to verify exact age and membership duration with the Fitness Centre records.

THE PILOT STUDY

An initial pilot study of part 1 was conducted on March 5th, 1991 with twelve members of the Grant MacEwan Community College (GMCC) Fitness Centre in Edmonton. These people were asked to complete the initial version of the questionnaire and critique its format, content, readability, the importance of the items, and assess whether or not questions should be added or deleted. This exercise confirmed the above criteria, as well as the response effect of including positive, negative, mild, and strong type statements.

A common concern from the pilot study participants was that some of the questions did not pertain to their particular Fitness Centre (i.e., Fitness tests providing an opportunity...) because of the difference in services offered and the fact that the GMCC Fitness Centre is a public facility. Therefore, it was decided that a second pilot study including sample respondents from an Employee Fitness Centre similar to the Esso Fitness Centre, would be appropriate. In March 1991, the survey was administered to 23 members of the Alberta Government Telephone Company (AGT) Employee Fitness Centre in Edmonton. These respondents were asked to answer the survey as accurately as possible, as well as to provide critiques regarding the content and readability of all the items.

Once this pilot study at AGT was completed, each of the respondents was asked to clarify any written feedback they had provided regarding the questionnaire. This information was used to make changes to any problem questions and items, as well as to confirm that all other items and instructions in the instrument were clear and concise. Furthermore, all items from part 1 were analyzed individually for systematic response sets.

In part 1, only one item (Appendix B - #25) had to be reworded because of some misunderstanding regarding the meaning. The other items appeared to be well understood and

showed some indication of potential spread in the responses despite generally positive response patterns.

For part 2, changes were made for various reasons. For example, the question pertaining to reasons for exercising at the centre initially asked to rank order the reasons from 1-14 according to importance. Since many found that rank ordering so many choices was difficult and meaningless, the response system was changed by requesting a response set ranging from "highly important" to "not important". Furthermore, the question concerning with whom participants exercised was reworded in order to allow subjects to indicate preference of exercise companionship rather than forcing mutually exclusive choices. In addition, because of wording inconsistencies, the question directly addressing impact on lifestyle was altered and placed as a separate item. Finally, it was suggested that the questions applying to the frequency of using the centre, and partaking in activities at the centre, should request an average number of times per week as opposed to the number of times per month.

In order to measure the logical validity of the items which were designed for this study, five "experts" in the field of activity psychology were asked to review the survey. They were provided with a description of the five subgroups, and individually asked to read each item and

determine to which subgroup the item corresponded. This exercise revealed that items were correctly classifiable as consistent with the five subgroups.

Once the above changes to the questionnaire were completed, a covering letter was written on University of Alberta letterhead, and attached to the questionnaire (See Appendix C). The covering letter had several purposes: to inform the subjects about the purpose of this study; to encourage all potential subjects to participate; and to gain the subjects' consent to use the information in a manner consistent with appropriate ethical standards.

The questionnaire and covering letter were submitted and approved by the Ethics Review Committee in the Department of Physical Education and Sport Studies, at the University of Alberta, in April, 1991. Concurrently, a copy of the covering letter and the survey questionnaire were sent to the manager of the Esso Fitness Centre and an Esso Employee Advisory Committee for approval. Both letter and questionnaire were ratified without any changes.

By mid May, 1991, the survey was reproduced and ready for distribution. The final instrument, including the covering letter, was seven pages long, and was copied back-to-back in order to conserve paper and not present an overwhelming appearance to potential subjects. Time for

completing the questionnaire was estimated at fifteen minutes.

DISTRIBUTION OF THE INSTRUMENT

An updated membership list of 876 potential subjects was generated, as of April 30, 1991, from the pay-roll department at Esso. This list of members was divided into fifths in order for five of the Fitness Centre staff to individually address and mailout the questionnaires as simultaneously as possible. The mailout was completed within two weeks. In order to maximize the response rate, reminder notices regarding the importance of completing and returning the questionnaire were posted in the Fitness Centre.

As completed questionnaires were returned, code numbers were checked off the master membership list. These members' names were then removed from the follow-up mailing list. A computer printout consisting of member code numbers, birthdates, employee type, and membership start and end dates were made available. Because this data was updated on computer only up to August 30 1990, the equivalent information had to be manually compiled for all members who joined or rejoined the centre after that date. Staff of the Fitness Centre completed this task by accessing each individual's membership file.

As of June the 4th, 1991, 316 responses were received, and 19 surveys were returned to the centre unopened due to these members having left the company. Between June 5-11 (three weeks after the initial mailout), 541 follow-up letters (See Appendix D) along with a second copy of the questionnaire were sent to members who had not yet responded. As a result of Esso's concern for saving paper, the follow-up letter requested members to return the questionnaire if they had no intention of responding. June 21, 1991 was the deadline date for replying, however, the few questionnaires received after this date were included in the analysis.

During the time between initial mailing, follow-up letters, and data collection, communication between the author and the Fitness Centre was continually maintained via telephone in order to address potential concerns, questions, or problems.

DATA TREATMENT

At the end of June, 1991, all completed questionnaires were collected from Esso for analysis. The questionnaires were placed in order of centre code number. Exact ages and membership durations were confirmed by referencing the membership lists, and responses were coded for statistical analyses. The age of each member was calculated in whole years as of the date when the survey was completed.

Membership duration was calculated in months, from the initial start date, and included all months participants were actually registered members. In cases where membership was interrupted, the number of interruptions and the cumulative number of months away from the facility were also coded. There were a total of 109 interruptions in membership. From this total, 16% were from the 20-29 age category, 47% from the 30-39 year old group, 27% from the 40-49 year olds, and 9% from the 50+ year old age category.

In addition, when membership was cancelled, participants were asked by the Fitness Centre to provide a reason for leaving at the time of cancellation. These reasons were categorized and given specific code numbers by the Fitness Centre. These code numbers were included in the coding of the data for future analysis.

In order to minimize data transformation errors the following precautions were taken. To begin with, all data was transferred directly from the questionnaire to the scanning sheets. In addition, sections of the questionnaire were placed in columns in order to visually break up the data and permit early detection of errors. Furthermore, to minimize fatigue all data was coded for short time periods only, and alternated with breaks. All transformation was personnally performed by the researcher. Finally, each

scanning sheet was visually checked before the data was electronically read.

The data sheets were then computer processed and filed on disk for statistical analysis. All statistical analyses were completed by the investigator using the SPSSx PC+ package (Statistical Package for Social Sciences, personal computer version 3.0) (Norusis, 1988a, 1988b).

The initial statistical analysis performed was a frequency distribution of participants' membership duration and age categories. At the onset of the study, it had been decided that these categories be divided into three groups according to the frequency distribution results. As a result of the natural breaks in the distribution, the membership duration categories were divided into 0-26 months (short-term), 27-70 months (mid-term), and 71+ months (long-term). However, because of a concentration of members in their 30s, the natural breaks of the age distribution did not provide rational groups. Consequently, age was divided into the following four groups; 20-29, 30-39, 40-49, and 50+ year olds, in order to mark each decade.

Secondly, in order to verify the internal consistency and relationships of the items in part 1, as well as confirm the 5 subgroups postulated, a principal components analysis and reliability analyses were performed on all items associated with the five subgroups. Furthermore, for each

of the 25 items in part 1, the statistical procedures used to analyze the results began with a frequency distribution for the responses on the items. Next, a two way analysis of variance (ANOVA) was performed using the age groupings and membership durations. In cases where significant differences were found, a Scheffe post hoc analysis was completed to determine where these differences occurred.

For part 2, frequency distributions were assessed for all questions in that section. A cross-classification analysis was performed, including the chi-square test, for the lifestyle impact question and the question pertaining to reasons for exercising at the centre. Finally, analyses of variance and Scheffe post hoc tests were completed for the four-part lifestyle question and the items referring to fitness assessments. On all statistical analyses, where applicable, a .05 level of significance was used.

CHAPTER 4

RESULTS AND DISCUSSION

The results of this study are organized in order to answer the overall purpose of the study and five subproblems postulated in the first chapter. Before proceeding to address the research questions however, a demographic overview of the respondents will be presented. Following this, each research question will be approached by: (1) discussing the items in part 1 of the questionnaire; (2) presenting the findings on the lifestyle related questions from part 2; (3) reporting the results according to the Esso Plaza Fitness Centre's objectives; and (4) describing the nature of members' participation at the Fitness Centre. Most of the data presented in this chapter concerns the information obtained from the survey questionnaire sent to the members of the Fitness Centre in Calgary, Alberta. Other relevant data was obtained from the Fitness Centre staff and the company. Note that in the text of this chapter, all percentages reported have been rounded off to the nearest whole number and in the tables, to the nearest tenth.

RESPONSE RATES

For this study, a total of 876 questionnaires were initially distributed. Nineteen were returned unopened, due primarily to those employees having left the company before receiving the questionnaire. The remaining 857 questionnaires were assumed to have been received. The overall response totalled 479, a 56% response rate. Although this was considered to be a sufficient response rate for this study, it is believed that the rate was actually higher than presented because of circumstances within the company at the time of the study. As previously mentioned, the questionnaire was sent while the company was involved in an extensive organizational restructuring (i.e., downsizing). Consequently, it was believed that there were a number of questionnaires sent out to employees who had already left the organization. Although only 19 questionnaires were returned to the centre unanswered, it was believed that more questionnaires were left at the employees' mailing station and eventually discarded because the employees were no longer with Esso. Unfortunately, this was difficult to verify. Furthermore, employees who had received the questionnaire, and were leaving the company very shortly thereafter, could also have discarded the questionnaire. Given these circumstances, the response rate

obtained was considered to be adequate, and may have actually been very good.

DESCRIPTION OF THE SAMPLE

The sample description and results that follow are based on all 479 subjects who responded to the survey questionnaire. Of the respondents, 69% (n=329) were male, and 31% (n=150) female. The employment type breakdown consisted of: 91% (n=434) regular, 4% (n=19) contract, 3% (n=14) retired, and 3% (n=12) spouses. Due to the fact that the overwhelming proportion of respondents were regular type employees, subjects were not grouped by employee type for separate analyses.

The distribution of respondents according to age and membership duration at the Fitness Centre is presented in Table 1. Given the nature of the relationship between age and length of duration, it was expected that the number of subjects in the youngest age category (20-29) by long-term duration (71+ months) and the oldest age category (50+) by short-term duration (1-26 months) would be lower than the other age and duration category cells. Therefore, the low number of subjects in these two cells should be kept in mind when considering the results of the various analysis. However, all other age and duration category cells contained a sufficient number of respondents to reasonably separate

TABLE 1

FREQUENCY DISTRIBUTION OF AGE AND MEMBERSHIP DURATION

	AGE				
	20-29 years	30-39 years	40-49 years	50+ years	
DURATION					TOTAL
1-26 months	48 10.0% (25.8)	77 16.1% (34.3)	31 6.5% (44.8)	4 0.8% (56.8)	160 33.4%
27-70 months	36 7.5% (27.1)	71 14.8% (34.0)	36 7.5% (43.2)	16 3.4% (56.4)	159 33.2%
71 + months	8 1.7% (28.5)	77 16.1% (34.7)	50 10.4% (43.3)	25 5.2% (58.6)	160 33.4%
TOTAL	92 19.2%	225 47.0%	117 24.4%	45 9.4%	479 100%

Note. Percentages represent % of the total (479). Mean age per cell in parenthesis.

these categories for further statistical analyses. It is important to note that overall, the respondents' profile was representative of the Esso employee population, based on statistics received from the company.

THE QUESTIONNAIRE:PART 1

The first part of the questionnaire included statements which attempted to assess the attitudes of members toward the role of the Fitness Centre in their activity lives. As previously discussed, this section was designed to address the results according to five general subgroups, each comprising five items.

PRINCIPAL COMPONENTS ANALYSIS

Initially, a principal components analysis of all 25 items within part 1 of the questionnaire was performed.

> In principal component or factor analysis, the researcher is usually interested in discovering which variables in a data set form coherent subgroups that are relatively independent of one another...The specific goal of analysis may be to summarize patterns of intercorrelations among variables, to reduce a large number of variables to a smaller number of clusters...there are two major uses of [principal component or] factor analysis: exploratory and confirmatory... (Tabachnick & Fidell, 1983, p.372).

The major purpose of this analysis was to confirm if the five items per subgroup postulated, formed five coherent categories. The factor solution for the principal components analysis indicated the presence of six factors accounting for 55.2% of the variance, using the "eigenvalue-one" rule (Norman & Streiner, 1986). The majority of the variance (28.7%) was accounted for by the first factor in the solution.

With the analysis, a varimax rotation was performed on all 25 items. This type of rotation is used often because it maximizes "the variance explained by each factor" (Norman & Streiner, 1986, p.140). The following results originated from the varimax rotation. Four items from the Psychological subgroup, four items from the Health subgroup, along with one item from each of the Knowledge and the Enjoyment subgroups, loaded onto the first factor. Furthermore, factor 2 was comprised of three items linked to the Enjoyment subgroup, factor 3 included three items from the Social subgroup and one Enjoyment item, and factor 4 contained three items associated with the Knowledge subgroup and one item from the Psychological subgroup. Factor 5 was a combination of two Social items along with one Knowledge item, and a single Health item loaded onto factor 6.

The five subgroups did not emerge in this solution, therefore the results did not strongly support the treatment of the individual items as part of their respective subgroups (Health, Social, Psychological, Enjoyment and Knowledge). In other words, the factor analysis results suggested that the patterns of intercorrelations between items were not fully representative of the characteristics of the subgroups postulated. A possible reason for the factor analysis not resulting in five distinct factors representing the subgroups could be due to the fact that

respondents were, overall, a relatively homogeneous group in that their responses to many of the items were generally quite positive and very similar.

RELIABILITY

To further determine if the items within the five subgroups should be discussed collectively or individually, a reliability analysis was performed. This procedure determines the variance of all individuals' scores for each item and then adds the variance across all items, resulting in a measure referred to as the reliability alpha coefficient (Anastasi, 1988). With respect to this alpha coefficient, Borg (1987) and Helmstadter (1964) suggested that several different measures or tests yield different levels of acceptable reliabilities. Helmstadter (1964) presented the reported reliabilities of various studies dealing with attitude and interest measures (the type of questions covered in the first part of this study's questionnaire). On these types of tests, reported reliability alpha coefficients ranged between .42 as low and .98 as high, with an average of .70.

The results of this analysis revealed that the reliability alpha coefficients for each respective 5-item subgroup were: Health=.55, Knowledge=.67, Social=.52, Psychological=.69, Enjoyment=.75. In essence, these

coefficients showed that the items in the subgroups of Health and Social did not display particularly high internal consistency, while the subgroups of Knowledge, Psychological, and Enjoyment showed greater levels of internal consistency among their items.

The internal consistency for the Health subgroup may be low because two of the items examined health reasons, while another two items were directed toward physical fitness. The fifth item in this subgroup addressed the importance of weight control, which during the factor analysis loaded individually on a separate factor. The reason for this anomaly could be due to the fact that this item dealt with a specific condition (weight control), whereas the other items in this theme dealt with health and fitness in more general terms.

Internal consistency problems were also noted for the Social subgroup. Although the items in this subgroup measured some aspect of social support, each item focused on different aspects. For example, within the Social subgroup, the items measured social support from significant others (i.e., spouses, or best friends), from co-workers, from Fitness Centre staff, from the importance of meeting others and from being valued by the company. As a result, although one or two of these social aspects may be important to an individual, the same combination may not be important (at

least not to the same extent) to other participants. Also, sufficiently strong social support from some source (i.e., spouse) may preclude the need for support from other areas (i.e., co-workers).

A small number of items may also have contributed to the lack of internal consistency:

> Other things being equal, the longer a test, the more reliable it will be. It is reasonable to expect that, with a larger sample of behavior we can arrive at a more adequate and consistent measure [of reliability] (Anastasi, 1988. p. 121).

Borg (1987) also suggests that high internal consistency is difficult to attain with fewer items. Thus, with only five items for each subgroup, these statements are relevant.

With respect to the Enjoyment subgroup, the reasons explaining higher internal consistency could be that ideas for four items in this subgroup emanated from the Enjoyment scale designed by Kendzierski & DeCarlo (1991), which demonstrated high internal consistency (alpha coefficient = .93). Through studies using this scale, the items have been reviewed and modified yielding high internal consistency. As for the Psychological subgroup, the items measured various elements which had explicit psychological connotations. In other words, all the items dealt with the psychological well-being of respondents. A high response on a particular question would imply high responses to all questions included within this subgroup. With regard to the

Knowledge subgroup, all of the items specifically addressed knowledge or educational related aspects of fitness. Therefore, respondents who believed the fitness centre provided an educational component, would respond similarly to the majority of the Knowledge items. Enjoyment, Psychological, and Knowledge items could be analyzed in their respective subgroups.

A third analysis, a reliability analysis on all 25 items, was performed in order to assess whether the items should be treated within their respective subgroups or individually. The reliability alpha coefficient for this test was .87, which supports the fact that the 25 items collectively exhibited substantial internal consistency.

LOGICAL VALIDITY

The factor analysis and reliability analyses did not provide strong statistical support to treat the items collectively within their anticipated subgroups. However, because it was felt that the variable subgroups were intuitively reasonable sets, five experts in the field of physical activity and lifestyle were asked to separate the items into groups in order to measure the logical validity of the items. "Logical validity is claimed when the measure obviously involves the performance being measured" (Thomas & Nelson, 1985, p. 254). The results of this exercise

provided evidence that the five subgroups were identifiable units.

Since the five subgroups were defined through the logical validity test, the items were kept in their respective subgroup in order to facilitate the discussion. However subgroup scores were not used for analysis because they lacked the statistical support to be treated as such. For the purposes of discussion, the items will be categorized into five themes which will be entitled Enjoyment, Health/Fitness, Knowledge, Psychological, and Social Support.

ANALYSIS OF VARIANCE

The 25 items in part 1 were each assessed using a 5-point Likert scale in order to measure the degree to which participants were in agreement or disagreement with the statements presented. Since the Likert scale assumes equal intervals between points, that is, "the difference between "strongly agree" and "agree" is considered equivalent to the difference between "disagree" and "strongly disagree," and so on" (Thomas & Nelson, 1985, p. 186), it was acceptable to perform parametric tests such as an ANOVA on this data.

Within the two way ANOVA design, three different questions were addressed. The first aspect of analysis examined the interaction between the age categories and

membership duration categories, "that is, are there certain combinations of the two factors that produce effects over and above those that would be expected from the two factors considered separately and independently" (Glass & Hopkins, 1984, p.402). In instances where the interaction was significantly different between subjects, results were plotted graphically to assist in the explanation of the interaction. If there were no interactions present, then the analysis further examined the items for main effects. That is; (1) independent from membership duration, were the age category means for each item equal? and (2) independent from the age categories, were the membership duration means for each variable equal? In cases where the ANOVA revealed significant main effects, the Scheffe post hoc test was performed to identify which groups were significantly different.

> The Scheffe method is a very flexible post hoc multiple comparisons method. The unique advantage of the Scheffe multiple comparison method is that it can be used for 'data snooping'-for making any simple or complex contrasts even after inspecting the means (Glass & Hopkins, 1984, p. 382-383).

Also, Scheffe is a very conservative test, therefore researchers can be confident that differences between groups were indeed significant.

ASSESSMENT OF ATTITUDES AND PERCEPTIONS TOWARD THE ROLE OF THE FITNESS CENTRE ON PARTICIPANTS' ACTIVITY LIVES

This section introduces the overall purpose to be discussed in this study, which dealt with the attitudes and perceptions of the members toward the role of the Fitness Centre in their activity lives. These attitudes will be addressed according to the five themes previously outlined, starting with a description of the results obtained from the frequency analysis of each item, followed by the ANOVA results.

ENJOYMENT THEME

FREQUENCY OF RESPONSES TO ENJOYMENT THEME ITEMS

The items within the enjoyment theme all related to the fun or enjoyment aspects of exercising at the Fitness Centre. Respondents were asked to assess on a scale from strongly agree to strongly disagree, their feelings toward the enjoyment aspects of the Fitness Centre in their lives. Responses concerning the enjoyment items are presented in Table 2.

From the data presented in Table 2, the responses to the enjoyment items demonstrated that overall, the majority of participants enjoyed the Fitness Centre and their exercise programs at the centre. Over 90% of the participants strongly agreed or agreed that exercising at

TABLE 2

FREQUENCY DISTRIBUTION AND PERCENTAGE RESPONSE OF ENJOYMENT THEME ITEMS

ITEMS	RESPONSE CHOICES				
	SA	A	U	D	SD
Exercising at the centre is an enjoyable experience.	110 23.0%	322 67.2%	34 7.1%	7 1.5%	3 0.6%
I do not enjoy the exercise that I do at the centre.	6 1.3%	16 3.3%	27 5.6%	218 45.5%	211 44.1%
I do not look forward to exercising at the centre.	8 1.7%	18 3.8%	31 6.5%	251 52.4%	171 35.7%
The atmosphere at the centre makes it fun to exercise.	92 19.2%	293 61.2%	78 16.3%	14 2.9%	1 0.2%
Exercising at the centre is a high point of my day/week.	39 8.1%	196 40.9%	117 24.4%	111 23.2%	13 2.7%

Note. SA = Strongly Agree, A = Agree, U = Uncertain, D = Disagree, SD = Strongly Disagree. Percentages are for row totals. Missing cases out of N=479 for row totals consisted of items with no response.

the centre is an enjoyable experience. Likewise, almost 90% rejected the statement that they do not enjoy the exercise they do at the centre. To confirm these results, 88%

disagreed with the statement that they do not look forward to exercising at the centre, and 80% agreed or strongly agreed that the atmosphere at the centre made it fun to exercise. Furthermore, when asked if exercising at the centre was a high point of their day or week, 49% of the respondents agreed to such a strong statement. The above responses supported the notion that feelings of enjoyment play an important role in exercise participation (Kendzierski & DeCarlo, 1991).

ENJOYMENT, AGE, AND DURATION

The overall responses to the enjoyment items demonstrated that the majority of participants felt that the Fitness Centre provided enjoyment to their exercise experiences. Due to the highly positive nature of the responses associated with the enjoyment concept, it is not surprising to note that there was only one significant main effect and one significant interaction effect in all the items included in the theme, when analyzed by age and membership duration categories.

Regarding the item examining the atmosphere of the centre, there was a main effect for membership duration $F(2,477) = 5.798$, $p<.003$, between the short-term and the long-term members. The reported means for this item by duration, were: short-term ($M=3.81$), mid-term ($M=3.97$), and

long-term (M=4.12). These results specifically demonstrated that, the longer participants were involved with the Fitness Centre, the stronger they felt about the centre's atmosphere providing fun to their exercise sessions. This could be the result of feeling more comfortable with being at the centre over time. Consequently, these results provided support for Wankel's (1988) notion of a 'motive shift' towards enjoyment of the exercise process over time.

The other significant finding was an interaction effect for the item concerning looking forward to exercising at the centre $F(6,477) = 2.895$, $p<.009$. Table 3 provides the response means for this item by age and membership duration.

After plotting these means on a graph (See Figure 1), the interaction effect was interpreted in the following manner. The extent to which participants of different ages did not look forward to exercising depended on the status of their membership duration. Specifically, for the members from the first and third age categories (20-29 and 40-49 years old respectively), the longer they had been involved with the program at the centre, the more they denied not looking forward to exercising there. In other words, the analysis suggests that the 20-29 and 40-49 year olds tended to enjoy the centre more over time.

TABLE 3

ITEM RESPONSE MEANS BY AGE AND DURATION CATEGORIES

ITEM - I do not look forward to exercising at the centre.

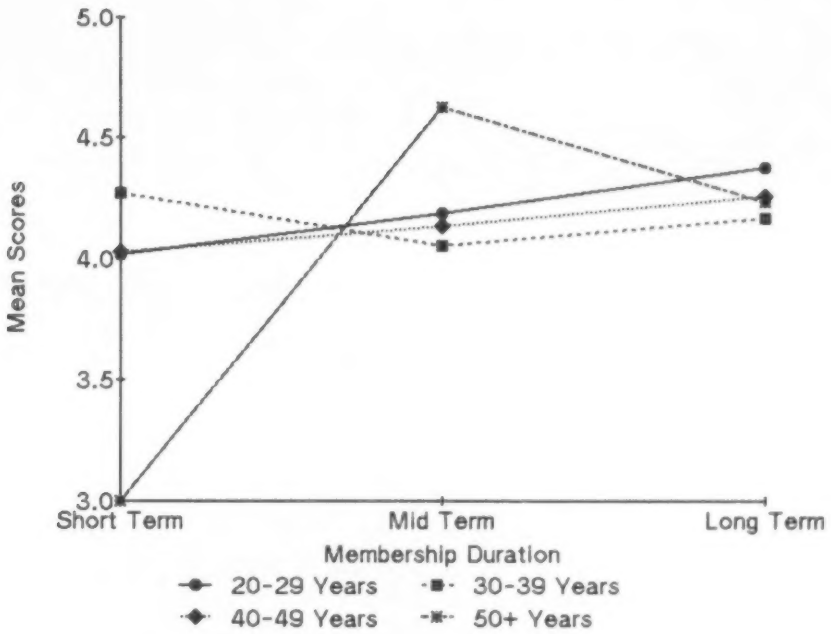
DURATION CATEGORIES	AGE IN YEARS 20-29	30-39	40-49	50+	TOTAL DURATION
SHORT-TERM (1-26 months)	4.02 (48)	4.27 (77)	4.03 (30)	3.00 (4)	4.12 (159)
MID-TERM (27-70 months)	4.19 (36)	4.06 (71)	4.14 (36)	4.63 (16)	4.16 (159)
LONG-TERM (71+ months)	4.38 (8)	4.17 (77)	4.26 (50)	4.24 (25)	4.22 (160)
TOTAL AGE MEAN	4.12 (92)	4.17 (225)	4.16 (116)	4.27 (45)	4.17 (478)

Note. Strongly Agree=1, Agree=2, Uncertain=3, Disagree=4, Strongly Disagree=5. Cell frequencies in parenthesis.

For the second age category (30-39 year olds), short-term duration members disagreed the most strongly with not looking forward to exercising at the centre, while the mid-term duration members of the same age disagreed the least with the statement. There was an increase in the level of disagreement for the long-term members, but not to the same extent as the short-term group. However, the responses

FIGURE 1

INTERACTION EFFECT BY AGE AND DURATION
For Item - Not looking forward to exercising at the centre.



between the short-term, mid-term, and long-term duration categories were minimal, as a result it is difficult to propose that there was a change in their enjoyment over time.

Interestingly enough, for the oldest age category (50+ year olds), a dramatic attitude difference with respect to the short-term ($\underline{M}$=3.00) and mid-term ($\underline{M}$=4.63) duration members was evident. In other words, short-term members

were unsure about their feelings toward not looking forward to exercising at the centre, while the mid-term group strongly disagreed with the statement. It is important to consider that the number of respondents in the short-term older age cell is very low (n=4). The long-term duration members ($\underline{M}$=4.24) also disagreed to the statement, but not to the same extent as the mid-term duration members. The reason why the new 50+ year olds may not look forward to exercising at the centre could be that exercise altogether may be a new and somewhat threatening behavior which they are still getting used to. The "fitness movement" that occurred in the early 70s affected the younger age group during their developmental years, and thus may have become more institutionalized for that particular age group. The older individuals may have had ingrained health habits which were not necessarily congruent with the fitness movement. Therefore, it may be more difficult for those members to accept fitness as an integral part of their life. Concerning the short-term older age group, it is likely they are just starting to include exercise into their lives, which means learning something new, and perhaps having to form new habits. Until the exercise becomes easier to do, and part of a weekly routine, these attitudes may not change or they may change slowly.

SOCIAL SUPPORT THEME

FREQUENCY OF RESPONSES TO SOCIAL SUPPORT THEME ITEMS

The items within this theme referred to some of the social support aspects of being involved with exercising at the Fitness Centre. Two of the items addressed the level of social support participants associated as occurring within the centre, such as meeting others and the role of the Fitness Centre staff. Two other items dealt with the sources of social support which were received primarily from external to the centre, such as support from significant others and from co-workers. The fifth item concerned whether or not participants felt that their involvement with the Fitness Centre made them feel valued by the company. Table 4 displays the responses to each of the social support items.

With respect to perceptions regarding the social support factors found within the Fitness Centre, it was interesting to discover that there was a fairly even distribution between those who agreed (38%) and those who disagreed (45%) that meeting others at the centre was an important part of their exercise involvement. Similarly, 37% agreed and 34% disagreed that the Fitness Centre staff were largely responsible for why they liked to exercise at the centre. These results demonstrate that there are

TABLE 4

FREQUENCY DISTRIBUTION AND PERCENTAGE RESPONSE OF SOCIAL SUPPORT THEME ITEMS

ITEMS	RESPONSE CHOICES SA	A	U	D	SD
An important part of my centre exercise program involves meeting others.	20 4.2%	160 33.4%	84 17.5%	189 39.5%	26 5.4%
The Fitness Centre staff are largely responsible for why I like to exercise.	18 3.8%	157 32.8%	138 28.8%	142 29.6%	22 4.6%
Those who are important to me think my involvement is a waste of time.	1 0.2%	4 0.8%	25 5.2%	208 43.4%	241 50.3%
My co-workers do not support my participation in the fitness centre.	6 1.3%	15 3.1%	86 18.0%	202 42.2%	166 34.7%
Exercising at the centre increases my sense of being valued by the company.	21 4.4%	108 22.5%	166 34.7%	131 27.3%	43 9.0%

Note. SA = Strongly Agree, A = Agree, U = Uncertain, D = Disagree, SD = Strongly Disagree. Percentages are for row totals. Missing cases out of N=479 for row totals consisted of items with no response or items which were not applicable.

similar proportions of members who value the Fitness Centre as a site in which to develop or maintain social contacts, or that the staff provides the social inspiration necessary for members to continue their use of the centre, as there are those who do not value these factors.

Although "within centre support" did not rate very strongly with the participants, social support from other people outside of the centre was clearly important. The majority (94%) of the respondents strongly disagreed or disagreed that those who were important to them thought their involvement was a waste of time, while 77% rejected the notion that their co-workers did not support their participation at the centre. These findings were consistent with previous research concerning social support (Durkin, 1987). Also, the responses to these two items revealed the reinforcing support received by participants from the people closest to them, for their involvement in their exercise programs at the centre. There was also evidently very little co-worker disapproval (4%) of centre use by employees.

The last item within the social theme, examined the sense of being valued by the company. Although from the company's perspective, an "in house" fitness program was viewed as an extra employee benefit (i.e., caring for the employees), the responses from participants regarding this

issue were not very supportive of this concept. Not even one third (27%) of the respondents were in agreement that exercising at the centre increased their sense of being valued by the company. Furthermore, 35% were uncertain, and 36% disagreed with the notion that the company considered employees to be important through its provision of a Fitness Centre. Employees in general did not perceive the Fitness Centre as a measure of the extent to which the company cared for their well-being. There could be a couple of reasons for this perception. One of the reasons for these responses could be attributed to the fact that the company was, at the time of the study, undergoing major restructuring and, the overall feeling at Esso was that no one was indispensable. Under different circumstances, the employees may have felt more positively about the company's concerns for their personal well-being. However, with company cutbacks and the insecurity of jobs, the impact of the Fitness Centre on employees' worth to the company was very likely diminished. Another reason could be due to the number of companies in Calgary which provide work-site employee fitness programs. Employees may be taking these programs for granted, rather than appreciating the fact that the Fitness Centre is an additional benefit.

SOCIAL SUPPORT, AGE, AND DURATION

With respect to the ANOVAs performed on the social support items, a significant main effect was found for membership duration on one of the items included in this theme. As well, there was a significant main effect for age on another item. There were however, no significant interactions in any of the social support items.

With regard to the item concerning the importance of meeting others at the centre, the ANOVA revealed a significant main effect $F(2,473) = 5.606$, $p<.004$ for membership duration between the long-term members ($M=3.11$) and the short-term members ($M=2.71$). Although both means were close to the mid range (i.e., uncertain) for responses, it is apparent that even though meeting others was not considered an important part of the exercise programs for the majority of the members, members who were involved for a longer period of time felt it was more important to them than the ones who had just recently joined the centre. This supports the argument previously stated, that participants do not necessarily join the Fitness Centre in order to meet other people. However, as participants become more involved with the program, an added incentive may be the enjoyment they derive from the social aspect of meeting with friends or exercise partners at the Fitness Centre. This was supported by the research of Wankel (1988) who found that as

participants continue with an exercise program, they tend to enjoy it over time.

The one social support item which demonstrated a significant main effect for the age categories $F(3,467) = 4.263$, $p<.006$, dealt with the Fitness Centre staff being largely responsible for why members liked to exercise at the centre. Again, according to the frequency analysis, the responses to this item clustered around the mid range (i.e., uncertain), however there was a significant difference between the oldest age group (M=3.55) and all of the other age categories (40-49 M=3.04; 30-39 M=2.93; 20-29 M=2.96). This suggests that members within the first three age categories (i.e., between 20 years and 49 years) did not feel that the staff were instrumental to their exercise experience, while the oldest group of participants felt more dependent on the staff. The responses to this item could be attributed to a number of reasons. First, the notion of exercise could be fairly new to some of the older participants, as the fitness movement has just recently evolved. Therefore, older participants may require more attention and help with their exercise programs. As a result, the staff play an important nurturing role in the achievement of their fitness and health goals. For the older members who have been at the centre for a longer period of time, they may use the staff as information

resources for the more recent updates on exercise. Furthermore, older participants may be more interested in exercise as a preventative measure for health concerns which are more relevant as one ages. They may consult the staff for advice more often than members in the younger age group.

PSYCHOLOGICAL THEME

FREQUENCY OF RESPONSES TO PSYCHOLOGICAL THEME ITEMS

The psychological items selected for this study ranged from mild statements such as feeling good about oneself, to much stronger statements dealing with depression. The purpose of these questions was to determine how the centre had provided the opportunity to use exercise as a means for affecting not only physical health, but also mental health, a focus of much of the current exercise literature. Table 5 provides a summary of responses for the items grouped in this theme.

As discussed in Chapter 2, Rodin & Plante (1988) as well as Shore et al. (1989) pointed out that exercise has been associated with decreases in depression and stress, along with improved well-being, self-esteem and feeling good about oneself. The results from some of the psychological items support these findings. Concerning the positive psychological influences affecting the participants, the overall concept that exercise makes one feel good about

TABLE 5

FREQUENCY DISTRIBUTION AND PERCENTAGE RESPONSE OF PSYCHOLOGICAL FACTORS THEME ITEMS

ITEMS	RESPONSE CHOICES				
	SA	A	U	D	SD
Exercising at the centre makes me feel good about myself.	234 48.9%	235 49.1%	7 1.5%	3 0.6%	0 0.0%
My life is so much richer as a result of being able to exercise at the centre.	61 12.7%	253 52.8%	116 24.2%	43 9.0%	5 1.0%
Exercising at the centre has allowed me more control in my life.	25 5.2%	205 42.8%	160 33.4%	75 15.7%	7 1.5%
I am more likely to get depressed if I miss my exercise sessions at the centre.	49 10.2%	190 39.7%	114 23.8%	109 22.8%	17 3.5%
I find exercising at the Fitness Centre does very little to relieve my stress.	5 1.0%	17 3.5%	38 7.9%	246 51.4%	173 36.1%

Note. SA = Strongly Agree, A = Agree, U = Uncertain, D = Disagree, SD = Strongly Disagree. Percentages are for row totals. Missing cases out of N=479 for row totals consisted of items with no response.

oneself was supported by virtually all (98%) of the respondents. Furthermore, 66% contended that their life was much richer as a result of exercising at the centre. These statements provided evidence that exercise associated with the centre has a positive influence on well-being. In addition to this, 48% of the respondents believed that exercise actually allowed them more control over their lives, as opposed to only 17% who disagreed with that statement. It is interesting to note that half of the respondents agreed that they were actually more likely to experience depression if they missed exercising at the Fitness Centre. Furthermore, 88% of respondents disagreed with the statement that exercising at the centre does little to relieve stress. This is a substantial finding considering the increased amount of stress people face in today's society. From the employer's perspective, it is important to note the large number of Fitness Centre members using the centre as a means for relieving their stress since, ultimately, the outcome of exercising may have an effect on their work. From the above results, it is evident that the centre was perceived as having had a positive effect on the psychological health of most respondents.

PSYCHOLOGICAL ITEMS, AGE, AND DURATION

For the psychological items, one significant main effect and one significant interaction were found after the ANOVAs were performed. The significant main effect $F(2,477) = 6.191$, $p<.002$ for membership duration categories was found for the item which refers to the richness of participants' lives as a result of being able to exercise at the centre. The results of this analysis indicated that there was a significant difference between the long-term membership category ($M=3.87$) versus both the mid-term ($M=3.60$) and the short-term ($M=3.55$) categories. An explanation for the difference in responses between the long-term duration group, and the other two duration groups, could be that the longer participants were immersed in their exercise programs, the more they appreciated the value of the results they achieved by exercising. Consequently, it was apparent that the exercise and the Fitness Centre had become a major part of their life.

The significant interaction effect $F(6,477) = 3.025$, $p<.007$ was found between age and membership duration in relation to the responses concerning how little exercising at the Fitness Centre was relieving participants' stress. Table 6 provides a description of the responses to this item by age and membership duration.

TABLE 6

ITEM RESPONSE MEANS BY AGE AND DURATION CATEGORIES

ITEM - I find exercising at the Fitness Centre does very little to relieve my stress.

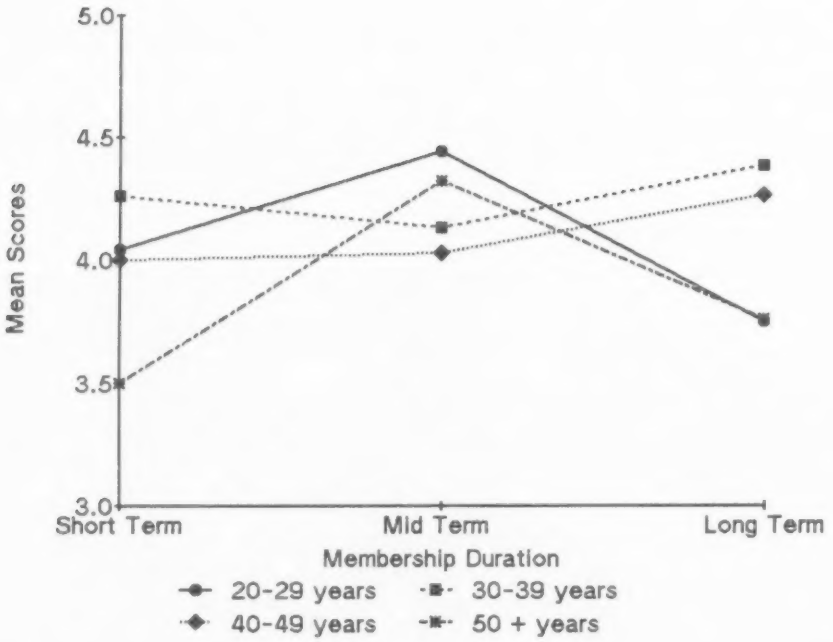
DURATION CATEGORIES	AGE IN YEARS 20-29	30-39	40-49	50+	TOTAL DURATION
SHORT-TERM (1-26 months)	4.04 (48)	4.26 (77)	4.00 (31)	3.50 (4)	4.13 (160)
MID-TERM (27-70 months)	4.44 (36)	4.13 (71)	4.03 (36)	4.31 (16)	4.19 (159)
LONG-TERM (71+ months)	3.75 (8)	4.38 (76)	4.26 (50)	3.76 (25)	4.21 (159)
TOTAL AGE MEAN	4.17 (92)	4.26 (224)	4.12 (117)	3.93 (45)	4.18 (478)

Note. Strongly Agree=1, Agree=2, Uncertain=3, Disagree=4, Strongly Disagree=5. Cell frequencies in parenthesis.

After plotting these means on a graph (See Figure 2), three basic patterns were apparent. Respondents from the short-term and the mid-term duration groups for the third age category (40-49 year olds), disagreed almost to the same degree ($\underline{M}$=4.00 & 4.03 respectively) in regard to finding the

FIGURE 2

INTERACTION EFFECT BY AGE AND DURATION
For Item - Exercising at the centre does very little to relieve stress



Fitness Centre doing very little to relieve their stress. However, the long-term duration members of this age group disagreed considerable more (M=4.26).

For the second age category (30-39 year olds), the mean responses to this statement, for the short-term duration group, was 4.26. The mid-term duration group for this age category responded less strongly with a mean of 4.13, while the long-term members of the second age group disagreed the

most strongly (M=4.38) regarding the stress relief effect of the centre.

The responses to this item for the first (20-29 year olds) and fourth (50+ year olds) age categories followed relatively the same pattern, except for the degree of change between the short-term and mid-term duration categories. The short-term duration members of the first age category disagreed with the statement (M=4.04), while the 50+ year olds of the same duration disagreed to a much lesser extent (M=3.50). However, for the mid-term duration categories of both the youngest and the oldest age groups, members disagreed to a greater extent, (M=4.44 & 4.31 respectively), than the short-term members of these age groups. This revealed a more dramatic increase in response pattern for the 50+ year olds. Oddly enough, the long-term duration groups of both age categories reacted similarly once again, with overall milder reactions (M=3.75 and 3.76), with respect to finding that exercise does very little to relieve their stress.

Overall, the participants from all age categories rejected the suggestion that exercise at the Fitness Centre has done very little to relieve their stress. For both the 20-29 and 50+ age groups, it is possible that the short-term duration members in these age categories had not been involved with the program long enough to notice a change in

the effects of exercising on their stress levels. The longer the 20-29 and 50+ year olds were involved with the centre, the more they perceived that they were using exercise as a medium for relieving stress. According to the mid-term category participants' responses, the centre had provided them with an opportunity to relieve their stress. As for the long-term duration members of these age groups, the reason why they responded to a lesser extent than the other age and duration categories could be due to the fact that they use exercise as a stress release so effectively, that the degree to which they are now affected by stress is minimal. Another reason why the youngest and oldest age groups did not feel as strongly as the other groups regarding the centre providing a stress release, could be due to the actual amount of stress within their lives. At the ages of 20-29, it is possible that there are fewer family or financial commitments than at later ages. Also, a majority of these employees may be at the stage where they are just developing their career with the company. For the 50+ year olds, they may also experience less stress due to the fact that children will primarily have left the household, financial stability is attained (i.e., no major debts), and a large percentage of these employees are "settled" or "winding down" careers in preparation for retirement. Another explanation could be the result of

stress being a more modern concept. Perhaps the older members do not relate to the stress issue as readily as the 30-49 year olds, because they have not totally accepted the concept of stress as a major variable in their lives. As for the 30-39 and 40-49 year old members, family, financial, and job stress could all be major and recognized parts of their lives. Therefore, both of these age categories, within all membership duration categories, felt strongly about exercise at the Fitness Centre providing them with an opportunity for stress release. As previously mentioned, this is a meaningful issue for the company to be aware of, since stress release can have important implications for the quality and the quantity of work achieved by employees.

HEALTH/FITNESS THEME

FREQUENCY OF RESPONSES TO HEALTH/FITNESS THEME ITEMS

The items in this theme were designed to address physical health concepts as opposed to psychological or mental health. Table 7 displays the frequency for responses to all the items categorized in the health/fitness theme.

In the review of the literature, it was noted that health concerns were usually an important reason for people to initiate and continue with an exercise program (Wankel, 1988). The results of this study strongly supported this argument. When examining the respondents' answers to the

TABLE 7

FREQUENCY DISTRIBUTION AND PERCENTAGE RESPONSE OF HEALTH/FITNESS THEME ITEMS

ITEMS	RESPONSE CHOICES				
	SA	A	U	D	SD
I exercise at the centre to prevent health problems.	104 21.7%	307 64.1%	30 6.3%	34 7.1%	4 0.8%
I feel much healthier as a result of my using the centre.	150 31.3%	280 58.5%	43 9.0%	5 1.0%	1 0.2%
The centre and its programs have had only small effects on my general physical fitness.	7 1.5%	69 14.4%	43 9.0%	272 56.8%	87 18.2%
The program at the centre has given me a realistic chance to achieve my fitness goals.	102 21.3%	285 59.5%	73 15.2%	17 3.5%	2 0.4%
Weight control is not an important goal in my program at the centre.	31 6.5%	102 21.3%	22 4.6%	209 43.6%	115 24.0%

Note. SA = Strongly Agree, A = Agree, U = Uncertain, D = Disagree, SD = Strongly Disagree. Percentages are for row totals. Missing cases out of N=479 for row totals consisted of items with no response.

two health related items, a large percentage of the participants (86%) strongly agreed or agreed that they exercised at the Fitness Centre to prevent health problems. Only 8% rejected that notion. As well, 90% of the members agreed that they were feeling much healthier as a result of their involvement at the Fitness Centre. Virtually no one (1%) rejected this statement.

From a physical fitness perspective, 75% of the respondents disagreed that the centre and the programs offered had only small effects on their general fitness level, probably because most respondents (80%) believed that the program at the Fitness Centre had given them a realistic chance to achieve their fitness goals. So, even though 16% agreed that the actual effects of the centre's programs have been small, only 4% indicated that a realistic opportunity to achieve fitness goals had not been provided by the centre. Associated with the physical aspect of health was the item concerning weight control. About two thirds (68%) of the participants viewed weight control as an important goal in their program, while almost 28% felt that it was not important. In comparison with the other physical fitness oriented items, weight control was evidently not as universally sought as a goal. A reason for this response could be that in contrast to the other items in this theme, this item addressed a specific characteristic (weight

control). Therefore, there was a greater chance that participants could respond more definitively to this item.

HEALTH/FITNESS ITEMS, AGE, AND DURATION

For this theme, significant interaction effects for three of the items were found. The first significant interaction $F(6,465) = 2.501$, $p<.022$ to be discussed dealt with the participants feeling much healthier as a result of their use of the centre. Table 8 presents the means for this item by age and duration categories.

After plotting the means of members by age and membership duration (See Figure 3), there were three visible patterns. It was interesting to notice that for each of the age categories, the long-term duration members had higher overall responses to the question, than short-term members. In other words, members who had been involved with the program for more than 71 months, felt healthier as a result of their involvement in the centre, than members who had only been involved with the centre for less than 2 years.

Judging from the responses of each of the age categories, the largest fluctuations occurred with the oldest age group. The short-term 40-49 and 50+ year olds on average were mixed between uncertain and agreeing to feeling healthier as a result of using the centre, perhaps because

TABLE 8

ITEM RESPONSE MEANS BY AGE AND DURATION CATEGORIES

ITEM - I feel much healthier as a result of my using the centre.

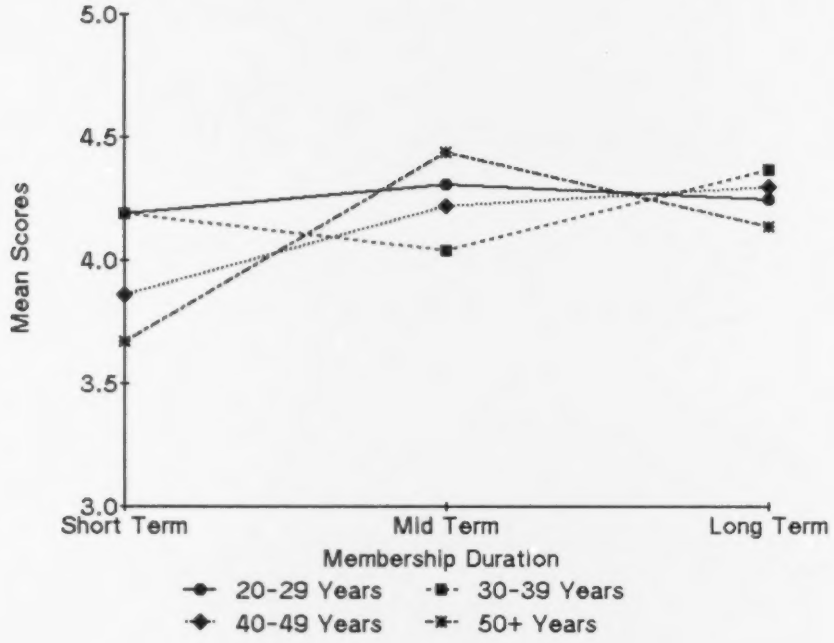
DURATION CATEGORIES	AGE IN YEARS 20-29	30-39	40-49	50+	TOTAL DURATION
SHORT-TERM (1-26 months)	4.19 (48)	4.19 (75)	3.86 (29)	3.67 (3)	4.12 (155)
MID-TERM (27-70 months)	4.31 (36)	4.04 (68)	4.22 (36)	4.44 (16)	4.19 (156)
LONG-TERM (71+ months)	4.25 (8)	4.37 (76)	4.30 (50)	4.14 (21)	4.31 (155)
TOTAL AGE MEAN	4.24 (92)	4.21 (219)	4.17 (115)	4.22 (40)	4.20 (466)

Note. Strongly Agree=5, Agree=4, Uncertain=3, Disagree=2, Strongly Disagree=1. Cell frequencies in parenthesis.

they had not yet had the chance to feel the positive effects of exercise. As for the mid-term duration group, 50+ year olds, their responses were considerably stronger with respect to feeling healthier, while the respondents in the long-term duration group of this age category felt almost as strongly to this statement.

FIGURE 3

INTERACTION EFFECT BY AGE AND DURATION
For Item - Feeling Healthier as a result of the centre.



The other age category which displayed greater differences between duration groups, were the 40-49 year old members. For this age category, it appeared that the longer they were involved with the centre, the more they associated feeling healthy with centre involvement.

In conclusion, the responses to this statement revealed that the longer participants of any age category are

involved with an exercise program at the Fitness Centre, the more strongly they believe that their program at the centre has had an effect on their feeling healthier. It is also important to point out that older participants (40-49 and 50+ year olds) showed the greatest change over time, with respect to feeling healthier as a result of using the Fitness Centre. The cause for this could be that the older participants' main purpose for being involved with exercise programs at the centre is for health concerns. If this is the case, then the effects of these programs have been successful. Furthermore, these findings partially support the "motive shift" mentioned by Wankel (1988). The longer participants were involved with their exercise programs, the findings showed that they were more likely to feel healthier. As a result, participants' reasons for exercising may have changed from health concerns to enjoyment of the process.

The second significant interaction $F(6,477) = 2.691$, $p<.014$, dealt with respondents' perceptions about the programs at the centre giving them a realistic chance to achieve their fitness goals. The means between duration categories for each of the age categories did not vary considerably. However, for this item, the response patterns between membership duration categories and age groups were

quite different. Table 9 displays the means for this item, and Figure 4 demonstrates the means in graph form.

TABLE 9

ITEM RESPONSE MEANS BY AGE AND DURATION CATEGORIES

ITEM - The program at the centre has given me a realistic chance to achieve my fitness goals.

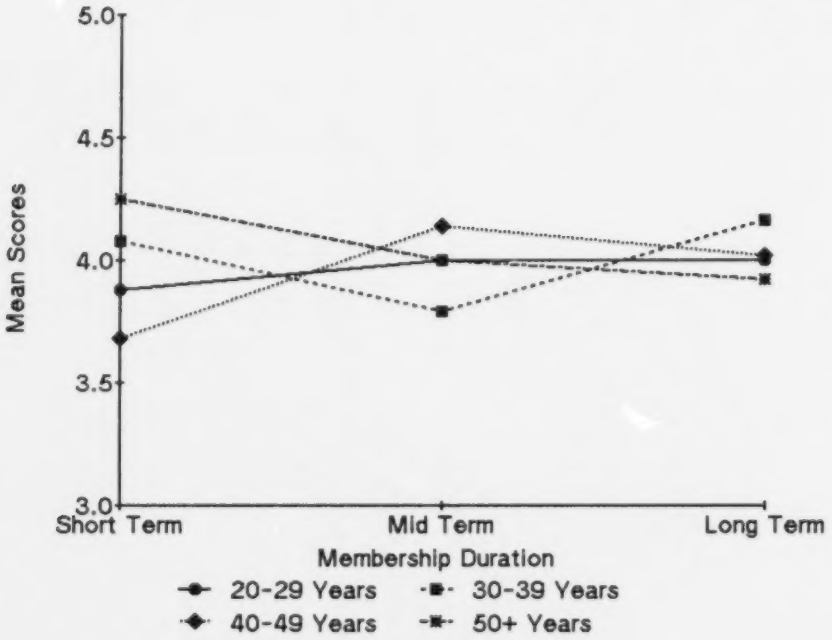
DURATION CATEGORIES	AGE IN YEARS 20-29	30-39	40-49	50+	TOTAL DURATION
SHORT-TERM (1-26 months)	3.88 (48)	4.08 (77)	3.68 (31)	4.25 (4)	3.94 (160)
MID-TERM (27-70 months)	4.00 (36)	3.79 (71)	4.14 (36)	4.00 (16)	3.94 (159)
LONG-TERM (71+ months)	4.00 (8)	4.16 (76)	4.02 (50)	3.92 (25)	4.07 (159)
TOTAL AGE MEAN	3.93 (92)	4.01 (224)	3.97 (117)	3.98 (45)	3.98 (478)

Note. Strongly Agree=5, Agree=4, Uncertain=3, Disagree=2, Strongly Disagree=1. Cell frequencies in parenthesis.

For the youngest age group, the responses were virtually the same across all duration categories. Essentially, members of all three duration groups within

FIGURE 4

INTERACTION EFFECT BY AGE AND DURATION
For Item - Program at the centre giving a realistic chance to achieve fitness goals.



this age category equally believed that they have had the opportunity to achieve their fitness goals.

The response patterns for members of the second age group (30-39 year olds) showed that participants in the mid-term group were in less agreement than the other two duration groups, with respect to the centre providing them with a realistic chance to achieve their fitness goals. As for the third age category, the short-term members were in

less agreement ($\underline{M}$=3.68) with the statement than the mid-term group ($\underline{M}$=4.14) and the long-term group ($\underline{M}$=4.02).

For the 50+ age category, short-term members' perceptions of achieving their fitness goals was relatively high ($\underline{M}$=4.25). However, it is important to note that the number of respondents in this cell were very small (n=4), therefore this mean response was that of a select group. As for the other two duration categories, the participants were also in agreement with the statement.

The final significant main effect $\underline{F}(2,465) = 5.694$, $\underline{p}<.004$ also included a significant interaction $\underline{F}(6,465) = 2.251$, $\underline{p}<.038$ for the item dealing with the extent to which respondents felt the centre and its programs affected their physical fitness by age and membership duration. Concerning this item, the significant difference for the main effect of membership duration occurred between mid-term and long-term members. However, as suggested by Glass and Hopkins (1984, p.408) "when a significant...interaction exists, the interaction influences the interpretation of the main effects". Therefore for this item, only the interaction will be examined. Table 10 provides the item responses by age and duration.

TABLE 10

ITEM RESPONSE MEANS BY AGE AND DURATION CATEGORIES

ITEM - The centre and its programs have had only small effects on my general physical fitness.

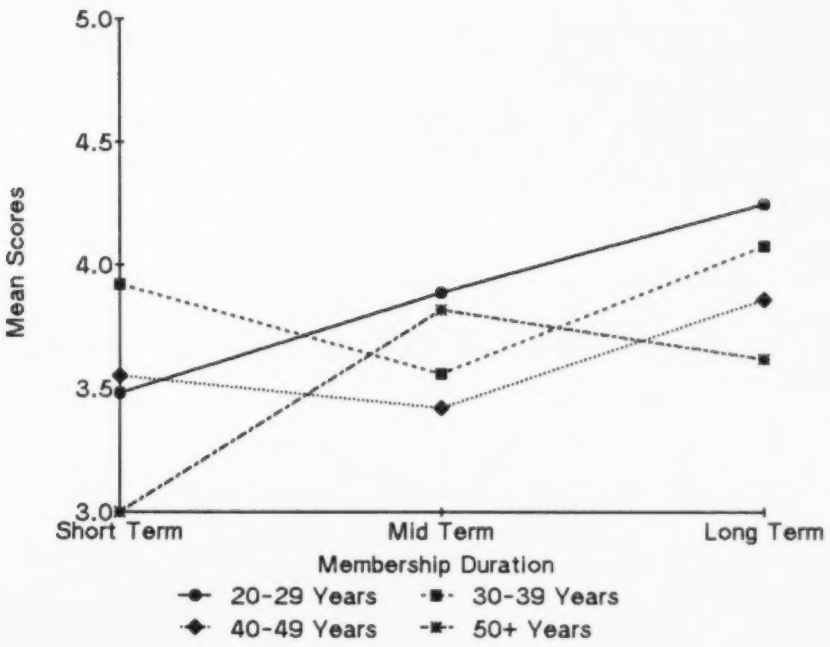
DURATION CATEGORIES	AGE IN YEARS 20-29	30-39	40-49	50+	TOTAL DURATION
SHORT-TERM (1-26 months)	3.48 (48)	3.92 (75)	3.55 (29)	3.00 (3)	3.70 (155)
MID-TERM (27-70 months)	3.89 (36)	3.56 (68)	3.42 (36)	3.81 (16)	3.63 (156)
LONG-TERM (71+ months)	4.25 (8)	4.08 (76)	3.86 (50)	3.62 (21)	3.95 (155)
TOTAL AGE MEAN	3.71 (92)	3.86 (219)	3.64 (115)	3.65 (40)	3.76 (466)

Note. Strongly Agree=1, Agree=2, Uncertain=3, Disagree=4, Strongly Disagree=5. Cell frequencies in parenthesis.

The mean responses plotted on a graph (See Figure 5) showed three distinct patterns across membership duration and age categories. First, responses from the 20-29 year old age category revealed a linear increase from the short-term to the long-term duration category. On average the short-term

FIGURE 5

INTERACTION EFFECT BY AGE AND DURATION
For Item - The centre and programs having small effects on general physical fitness.



duration category members responded as being uncertain and disagreeing (M=3.48) that the physical effects were only small, while the mid-term group responded more strongly (M=3.89), and the long-term duration group disagreed even more (M=4.25) with the statement. In other words, the longer this age group was involved with the centre, the stronger they objected to the suggestion that the Fitness Centre had just small effects on their fitness level. The

reason for this could be that over time, the long-term members have committed themselves longer to their exercise programs and have perceived more noticeable physical results than the other two membership duration groups.

The second distinct pattern occurred with the 30-39 and the 40-49 year olds. For the short-term duration categories of these age groups, the responses were below a mean of 4.00. Both of these means decreased further for the mid-term duration members. As for the long-term group, the means of both age groups increased considerably in about the same proportions. As with the 20-29 year old age group, both of these age categories revealed a marked increase in response level between the mid-term and the long-term duration categories. It is possible that the reason for the significantly higher level of disagreement to this statement between mid-term and long-term duration groups is similar to the argument presented for the 20-29 year olds. That is, the more time one is involved in a regular exercise program, the more committed they feel toward their physical fitness. Therefore, the longer participants were involved, the more important it was to them that their general physical fitness was maintained or increased. If the centre and its program were not providing the necessary elements for these members to obtain their fitness goals, then they may have chosen to exercise somewhere else, or not exercise at all.

The mean for members of the 50+ age group at the short-term duration was substantially lower than for all of the other cells ($\underline{M}$=3.00). Again there were only four people in this age and duration category, thus reflecting the perceptions of a small group. As for the mid-term duration group, the mean showed a considerable increase ($\underline{M}$=3.81) while the mean for the long-term group, was slightly lower ($\underline{M}$=3.62) than for the mid-term duration category. The reason for the differences in members' perceptions regarding the effects the centre and its programs have on their general physical fitness could be explained by the amount of time it takes for the benefits of exercise to occur. Unless a person is extremely committed to their exercise program, the benefits are not easily achieved. Furthermore, with increasing age, it becomes more difficult to improve the components of fitness because of physiological conditions (Ostrow, 1981). Therefore, it is possible that the older participants just starting, may find it more difficult to notice small effects on their general fitness level because it takes longer to gain improvements.

KNOWLEDGE THEME

FREQUENCY OF RESPONSES TO KNOWLEDGE THEME ITEMS

The final grouping to be discussed is the knowledge theme. Questions within this theme were included to

determine how effective the Fitness Centre was at providing members with general fitness information. Table 11 summarizes the responses to the items concerning the knowledge theme.

The responses to the knowledge theme were very positive. Almost three quarters (74%) of the participants confirmed improving their ability to understand fitness since being involved at the centre. Moreover, less than 3% of them found that it was difficult to learn more about fitness at the Fitness Centre. Furthermore, over 72% of the participants disagreed to not having improved their practical knowledge about exercising safely. In addition, fitness testing was an important mechanism which most respondents (82%) felt provided them with an excellent opportunity to learn more about fitness. Finally, 81% of the members agreed that the Fitness Centre had increased their belief in the positive value of exercise. These results demonstrated that the Fitness Centre was perceived as being very effective in conveying valuable fitness information to its members.

KNOWLEDGE ITEMS, AGE, AND DURATION

For the knowledge theme, there were no significant interaction effects present. However, four of the five items displayed significant main effect results in relation

TABLE 11

FREQUENCY DISTRIBUTION AND PERCENTAGE RESPONSE OF KNOWLEDGE THEME ITEMS

ITEMS	RESPONSE CHOICES				
	SA	A	U	D	SD
I have improved my ability to understand fitness since I have been involved at the centre.	57 11.9%	295 61.6%	75 15.7%	47 9.8%	5 1.0%
It is difficult to learn more about fitness through the centre.	1 0.2%	13 2.7%	43 9.0%	290 60.5%	132 27.6%
My participation at the centre has not improved my practical knowledge about exercising safely.	4 0.8%	51 10.6%	75 15.7%	308 64.3%	39 8.1%
Fitness tests provide an excellent opportunity to learn more about fitness.	130 27.2%	262 54.7%	53 11.1%	27 5.6%	4 0.8%
The Fitness Centre has increased my belief in the positive value of exercise.	155 32.4%	233 48.6%	49 10.2%	37 7.7%	5 1.0%

Note. SA = Strongly Agree, A = Agree, U = Uncertain, D = Disagree, SD = Strongly Disagree. Percentages are for row totals. Missing cases out of N=479 for row totals consisted of items with no response.

to the membership duration categories. The Scheffe post hoc test was employed in order to determine where the significant differences were.

The first significant main effect $F(2,477) = 9.199$, $p<.000$ dealt with the participants' feelings about improving their ability to understand fitness since their involvement with the centre. This item showed a significant difference between the short-term duration category ($M=3.51$) and both the mid-term ($M=3.77$) and long-term ($M=3.93$) categories. The moderate and long-term groups more strongly supported this concept to a greater extent than short-term duration members.

The second item referred to participation at the centre not improving practical knowledge about exercising safely ($F(2,467) = 6.432$, $p<.002$). This demonstrated a significant difference between short-term ($M=3.50$) and long-term ($M=3.87$) duration groups. The third item stated that it was difficult to learn more about fitness through the centre ($F(2,477) = 4.577$, $p<.011$). The Scheffe post hoc analysis demonstrated that the significant difference was between the long-term ($M=4.26$) duration group, and both short-term ($M=4.06$) and mid-term ($M=4.06$) duration groups. The long-term duration members disagreed more strongly than the other two groups, whose means were exactly the same with respect

to finding it difficult to learn more about fitness through the centre.

The fourth knowledge theme item showing a significant main effect was the item which asked if the Fitness Centre had increased participants' belief in the positive values of exercise ($F(2,477) = 9.453$, $p<.000$). Again, the significant difference was noted between the long-term duration group ($M=4.28$) and the short-term ($M=3.81$) duration group.

The significant differences found in the above four items all occurred between the long-term members and either the short-term, or both the short-term and mid-term duration members. These results demonstrated that members who have been involved at the centre for a longer period of time perceived that they have learned more about fitness. It appears to be logical that members who have been with the centre longer have taken more opportunities to actually improve their ability to understand fitness, as well as learn more about fitness in general and about exercising safely, than members who have been involved for a shorter period of time.

AGE AND MEMBERSHIP DURATION SUMMARY

According to the results presented in the previous pages, it is evident that greater significant differences

were noted with regard to the items by membership duration than by age.

With respect to age, previous studies in fitness had never addressed differences in perceptions across various age categories. One of the objectives of this study was to examine respondents' perceptions about the effects of the Fitness Centre on their activity lives. Few significant differences were found between the four age categories. The findings of this study seemed to suggest that when it comes to employee fitness programs, the perceptions of members toward the role of the Fitness Centre on their activity lives did not differ substantially according to their age.

However, results concerning membership duration demonstrated significant differences for a number of items. This is an interesting finding given that previous studies (Conrad, 1988; Rudnicki, 1986; Steinhardt & Carrier, 1989) have considered long-term involvement to be approximately two years or less. This was probably a result of the lack of sufficient data available regarding extended long-term involvement in employee fitness programs. The unique setting within this Fitness Centre provided an excellent opportunity to study involvement duration, beyond and far exceeding two years.

Results showed that there were differences among members even after the initial two year period of being

involved in an employee fitness program. Consequently, it may be inaccurate to suggest that members' perceptions remain constant over a long period of time and beyond the often studied 2 year period.

THE QUESTIONNAIRE:PART 2

LIFESTYLES

In order to measure members' perceptions about the role of the Fitness Centre on their lifestyles, responses were collected through four items focusing on lifestyle. The first item requested that the respondents rate the degree to which they felt the Fitness Centre has had an impact on their lifestyle. The frequency distribution of responses to this question showed that almost half (49%) of the participants felt that the Fitness Centre had either a major or a substantial impact on their lifestyles, while only a small proportion (11%) felt the centre had either a minor impact or no impact at all (See Table 12).

In order to determine the significance of the relationships between the perceptions of impact on lifestyle by age and membership duration categories, a chi-square test statistic was utilized. "The chi-square test is designed to test for independence between two nominal variables " (Agresti and Finlay, 1986, p.203). The chi-square test was deemed appropriate because the distance between each of the

TABLE 12

RATING OF IMPACT ON LIFESTYLE

BY MEMBERSHIP DURATION

IMPACT ON LIFESTYLE	MEMBERSHIP DURATION IN MONTHS 1-26	27-70	71+	ROW TOTAL
MAJOR IMPACT	8 (16.7)	16 (16.6)	26 (16.7)	50 10.4%
SUBSTANTIAL IMPACT	54 (61.8)	58 (61.4)	73 (61.8)	185 38.6%
MODERATE IMPACT	71 (63.8)	69 (63.4)	51 (63.8)	191 39.9%
MINOR IMPACT	25 (15.4)	12 (15.3)	9 (15.4)	46 9.6%
NO IMPACT	2 (2.3)	4 (2.3)	1 (2.3)	7 1.5%
COLUMN TOTAL	160	159	160	479

Note: Numbers represent observed frequencies with expected frequencies in parentheses.

response choices (i.e., major impact - substantial impact) could not be assumed to be of equal intervals. It is important to note that the chi-square statistic does not measure scores, rather

> ...it is based on a comparison between the frequencies that are observed in the cells of the cross-classification table and those that we would expect to observe if the null hypothesis of independence were true (Agresti & Finlay, 1986, p. 203).

A cross-classification analysis was carried out to determine the perceived impact of the Fitness Centre on respondents' lifestyles according to the four age categories, and the three membership duration categories. The chi-square statistic revealed no significance in the association between the lifestyle impact rating and age categories (chi-square=12.08, p=.4392). This indicates that age and lifestyle impact ratings were independent. However, lifestyle impact ratings were significantly related to membership duration (chi-square=28.21, p=.0004). Table 12 demonstrates the observed and expected frequencies for the item impact on lifestyle by membership duration categories.

Of those who rated the impact of the Fitness Centre on their lifestyles as major or substantial, 42% were from the long-term duration category, 32% were from the mid-term duration category, and 26% were from the short-term duration category. In fact, 62% of the long-term members rated the lifestyle impact as substantial or major compared to 46% of the mid-term group and only 38% of the short-term group. Furthermore, with respect to the entire population, about 6%

of members from the long-term group, 10% from the mid-term group, and 17% from the short-term group responded that the Fitness Centre has had either a minor impact or no impact on their lifestyles. Overall, these results demonstrated that members who were involved with the Fitness Centre for a longer period of time perceived that the centre has had a greater impact on their lifestyles. It is also apparent that the effect on lifestyle must be perceived as positive, otherwise members would not continue to be involved with the centre. Another explanation for these results is the possibility that members who perceive the Fitness Centre as having a stronger impact on their lifestyle, tend to adhere to the programs at the Fitness Centre, while those who rated it lower do not persist in their involvement and therefore drop out of the program.

The other four lifestyle-related items were grouped under one section. Respondents were asked to indicate on a 5-point Likert scale (from strongly agree to strongly disagree), their perceptions regarding these specific lifestyle oriented questions. A frequency distribution of the responses for the four lifestyle questions is found in Table 13.

A large number of participants (69%) believed they would have a strong commitment to exercise regardless of

TABLE 13

FREQUENCY DISTRIBUTION AND PERCENTAGE RESPONSE ON LIFESTYLE ITEMS

ITEMS	RESPONSE CHOICES				
	SA	A	U	D	SD
Exercise would be a regular part of your lifestyle even without the Fitness Centre.	123 25.7%	205 42.8%	80 16.7%	59 12.3%	12 2.5%
Exercising at the Fitness Centre is an important part of your regular routine.	144 30.1%	255 53.2%	43 9.0%	35 7.3%	2 0.4%
You would arrange or change your schedule to exercise at the Fitness Centre.	70 14.6%	251 52.4%	72 15.0%	79 16.5%	5 1.0%
To miss an exercise session at the Fitness Centre is sheer relief.	3 0.6%	2 0.4%	32 6.7%	290 60.5%	150 31.3%

Note. SA = Strongly Agree, A = Agree, U = Uncertain, D = Disagree, SD = Strongly Disagree. Percentages are for row totals. Missing cases out of N=479 for row totals consisted of items with no response.

whether or not they had access to an employee Fitness Centre. However, an even larger proportion of employees (83%) strongly agreed or agreed that exercise at the Fitness Centre was an important part of their regular routine. It would seem then that although the Fitness Centre may not actually cause a majority of these people to pursue exercise, it is certainly seen as playing a facilitating role in their activity patterns. This is an important fact for fitness professionals to note. As previously mentioned (Baun & Bernacki, 1988), in order to justify the success of, and maintain a substantial membership within employee fitness programs, promotion must not only cater to the people who are already exercisers, but also to the non-exercisers who probably need the special attention which these programs provide. This again raises the question of who should be the prime target market for such programs.

To further justify the strong commitment members displayed with respect to the Fitness Centre in their lifestyles, 67% of them strongly agreed or agreed that they would arrange or change their schedule in order to exercise at the Fitness Centre. In addition, almost all respondents (92%) strongly disagreed or disagreed that missing an exercise session at the centre would be a relief. These results confirm the important role the Fitness Centre plays in the lifestyles of the members.

A major reason for the importance of the Fitness Centre could be attributed to convenience. When asked about the convenient location of the Fitness Centre, 81% of the participants stated that this was an important factor. There could be a number of reasons for the importance of convenience such as; family commitments, time constraints, adherence, and payment plans.

Firstly, as a result of the family commitment to children immediately before and after work, often the optimal available time most working parents have to exercise is during the lunch hour. Clearly a work-site fitness centre meets the need of fitting exercise into the work day. Furthermore, from an adherence perspective, it is much easier to avoid exercising if one is required to travel from work to a fitness centre at another location. Therefore, the work-site fitness facilities provide a convenient and easily accessible location for participants to adhere to their regular exercise programs. A work-site facility not only helps to improve adherence due to on-site accessibility, but it also saves participants travelling time. In addition, it is easier for participants with busy schedules to plan a quick work out when the facility is so convenient. Furthermore, the payment plan for membership fees is also convenient with a small monthly fee which is directly deducted from each pay cheque. Members do not have

to preoccupy themselves with the administrative details of their membership dues.

Further analysis of the lifestyle items included a two way ANOVA for each lifestyle question by age and membership duration. With respect to the results of these ANOVAs, no significant interactions were detected, and only one significant main effect was found. The significant main effect of age was found in the item dealing with missing an exercise session at the centre being sheer relief. The Scheffe post hoc test revealed that there was a significant difference found between the 30-39 year old and the 50+ year old age categories. Specifically, the 30-39 year old age group disagreed more strongly about missing an exercise session ($\underline{M}$=4.29) than the 50+ year old age group ($\underline{M}$=3.98). The reason for this result could possibly be due to the importance placed on exercise between these two groups. As previously discussed, the older age group may not have fully integrated the concepts of the "fitness" movement. Therefore, the urgency of exercise may not be as great among the older subjects as it is to the 30-39 year old age group. Also, it is likely that the older participants exercise in order to maintain their health and fitness status, whereas the younger age group (30-39 year olds) may be more serious about improving various fitness components or relieving stress. As a result, missing an exercise session may have

more of a psychological impact on the 30-39 year old age group as opposed to the members who are 50 years and older. Furthermore, for 30-39 year olds, exercising at the Fitness Centre may be their only opportunity to exercise in the day, because their family commitments before and after work may limit their chance to exercise away from work.

EXERCISE OUTCOMES IN RELATION TO CENTRE OBJECTIVES

In 1981, when the Fitness Centre was initially established, the centre staff introduced an operations' manual which provided information such as: the major aim, program philosophy, operational definitions, and program objectives of the Fitness Centre; the fitness assessment protocol; and the qualifications of staff performing fitness assessments (Youldon et al., 1986). In this section a review of the Fitness Centre objectives which were incorporated in the 4th edition of the operations' manual will be presented, as well as a discussion of the extent to which these objectives have been met according to the exercise outcomes cited by respondents.

It is important to note that the questions from part 1 of the instrument were designed partially to address whether or not the Fitness Centre objectives had been achieved. These questions have already been discussed in the first section of this chapter. It is not the intention to

reiterate what has been previously covered, however, pertinent data will be highlighted in relation to the objectives of the Fitness Centre. In addition, to further investigate the degree to which the objectives of the Fitness Centre were met, and to cross check some of the responses provided in part 1, several items in part 2 of the questionnaire will be discussed. These specific items alluded to the importance of reasons given for exercising at the centre and shall be presented in conjunction with the respective centre objectives.

The first objective which the Fitness Centre was interested in fulfilling was to promote good health and low risk lifestyle patterns among Esso/Imperial employees. According to the lifestyle questions from part 2 of the questionnaire (see lifestyle section), participants agreed that exercise had become a large part of their lifestyle. This was apparent by the responses provided for the statements about: missing an exercise session at the Fitness Centre; the importance of exercising at the centre as part of members' routine; and changing schedules in order to exercise at the centre. With respect to the first objective's component of promoting health, responses to questions in part 1 clearly indicated that members exercised at the centre to prevent health problems, as well to feel healthier. In addition, when asked about health concerns in

part 2, almost half (46%) of the respondents acknowledged this as a highly important reason for exercising at the centre (See Table 14).

TABLE 14

FREQUENCY DISTRIBUTION AND PERCENTAGE RESPONSE OF REASONS FOR EXERCISING AT THE CENTRE

REASONS	RESPONSE CHOICES			
	Highly Important	Somewhat Important	Minimally Important	Not Important
Health Concerns	219 (45.7)	166 (34.7)	58 (12.1)	26 (5.4)
Enjoyment	139 (29.0)	224 (46.8)	82 (17.1)	23 (4.8)
Physical Fitness	387 (80.8)	83 (17.3)	5 (1.0)	0 (0)
Friendly Staff	130 (27.1)	224 (46.8)	93 (19.4)	20 (4.2)
Convenient Location	387 (80.8)	73 (15.2)	10 (2.1)	7 (1.5)
Hours of Operation	171 (35.7)	183 (38.2)	77 (16.1)	34 (7.1)
Inexpensive	114 (23.8)	184 (38.4)	116 (24.2)	60 (12.5)
Exercise Equipment	120 (25.1)	214 (44.7)	93 (19.4)	40 (8.4)

Note. Percentages are in parentheses. Missing cases out of N=479 for row totals consisted of items with no response.

The second objective of the Fitness Centre involved providing educational opportunities for Esso/Imperial employees in the areas of physical fitness and lifestyle patterns. The knowledge theme items discussed previously confirmed how effectively this objective had been met. The knowledge theme was discussed through these items: the Fitness Centre's efforts toward increasing members' belief about the positive value of exercise; members learning more about fitness through the centre; and their ability to understand fitness since their involvement with the centre.

Furthermore, a large proportion of respondents concurred that fitness tests provided an excellent opportunity to learn more about fitness. This is an important disclosure for the centre staff to be aware of, as they have always emphasized the provision of annual fitness assessments to participants. In the past, it has been a concern that mandatory fitness assessments have been a deterrent for individuals wanting to join the Fitness Centre. The assessments were in some instances considered a hindrance for those unfit individuals who were embarrassed about their perceived low level of fitness, and their concern for not wanting others to be aware of this. It was, however, comforting to note that of those who have become members of the Fitness Centre, almost 84% liked the fact

that fitness assessments were compulsory for joining the centre. Furthermore, 25% of the respondents agreed that one of the reasons they were members of the centre was due to the fact that they could receive a regular fitness assessment. To further confirm the importance placed on fitness assessments, 75% of the respondents agreed that fitness assessments provided them with the necessary information to help them set personal fitness goals. From these results, it is apparent that the Fitness Centre has addressed the educational component part of their mandate. An important part of meeting this objective can be attributed to the fitness assessments provided for members of the centre.

The third objective which was established for the centre at Esso was to provide a physical fitness program which included personal enjoyment in addition to physical fitness improvement/maintenance. The success concerning this objective was sampled in a number of items. The positive responses received throughout items on the enjoyment theme strongly supported the notion that members have enjoyed their participation at the centre. Additionly, when specifically asked how important enjoyment was when exercising at the centre, 29% of the respondents stated it was highly important, 47% said it was somewhat important, and only 5% felt it was not important (See Table 14).

With respect to the objective of providing the opportunity to improve or maintain physical fitness, the responses to two of the items in part 1 (the program providing a realistic chance to achieve fitness goals, and the effects of the program on general physical fitness) supported the success of meeting this objective. Furthermore, a very high proportion of respondents (81%) identified exercising at the centre for physical fitness as a highly important reason (See Table 14).

The final objective to be discussed dealt with the Fitness Centre providing friendly, supportive, and professional leadership that motivates and encourages Esso/Imperial employees to adopt a more active personal lifestyle. While it was noted that participants generally did not support the notion that the Fitness Centre staff were largely responsible for why they liked to exercise at the centre, members felt that it was important to them that the staff were friendly. Specifically, three quarters (74%) felt that it was highly important or at least somewhat important (See Table 14). Concerning whether or not members felt that staff were friendly and supportive, 80% responded "yes" when asked if the staff have assisted them in achieving their fitness goals. This was further reinforced through positive anecdotal comments from a number of the members that the staff have been helpful; that they have

always been available to provide assistance; and that they have been encouraging, supportive, as well as friendly, enjoyable, and pleasant. With these results there seems little question that the Fitness Centre has been successful, once again, at meeting their objective, at least with those members maintaining involvement with the centre.

In addition to the mentioned objectives, it may also be of interest to the centre staff to determine whether or not they "provide a physical fitness and lifestyle program appropriate to the individual needs of Esso/Imperial employees at the work place" (Youldon et al., 1986, p. iv). Among those employees who have taken advantage of the programs offered by the centre, it was evident that this secondary objective had also been accomplished.

With respect to the section in part 2 of the questionnaire addressing the reasons given for exercising at the centre, the following summary was appropriate (See Table 14). As previously mentioned, the convenience of the Fitness Centre was one of the most important reasons given by members to explain their involvement at the centre. In conjunction with convenience, the centre hours of operation were considered as highly important or somewhat important by 74% of the respondents. Another element tied to convenience was the cost associated with the use of the facilities. Twenty five percent of respondents felt that the low monthly

fee was highly important for them to continue at the centre. Only 12% felt that the cost was unimportant. Finally, the type of exercise equipment available at the centre was perceived to be adequate for participants. Almost half (45%) of the respondents felt that the exercise equipment was a somewhat important reason for using the centre while 25% felt it was highly important.

From the preceding discussion regarding the Fitness Centre objectives, it was evident that participants' perceptions concerning the programs at the centre reinforced the fact that the centre objectives were being met.

DESCRIPTION OF MEMBERS PARTICIPATION PATTERNS

The final purpose of this study was to provide descriptive information concerning the nature of members' participation in the Fitness Centre programs. Even though information regarding members' participation has been discussed throughout this chapter, there were a few additional items specifically related to participation patterns and program involvement which will be addressed in the following paragraphs.

With respect to the usage patterns of members, almost one quarter (24%) stated they used the centre four or more times per week, another 33% admitted to being involved at the centre three times per week, 29% stated they used the

centre two times per week, and the remaining were involved at least one time per week. Given the frequency and the number of members using the Fitness Centre, the programs and the centre operation are successful with respondents.

Regarding specific activities (Question #7 - Part 2), it was important to note that participants often engaged in more than one activity. As a result, the following percentages reported included the total number of participants who responded to the particular item, with no differentiation made between the number of times they admitted to partaking in the activity. Firstly, over half (52%) of the respondents either ran inside or outside the centre, while weight training was practiced by over 58% of the members. Furthermore, while only 29% of the respondents attended group exercise classes for cardiovascular fitness, 51% exercised individually on aerobic equipment (i.e., exercise bicycles and rowing machines). Additional activities for which the centre was used were: brisk walking from the centre, biking to and from work, practicing floor exercises and stretching, as well as performing rehabilitative exercises.

In summary, this chapter examined the results of the questionnaire which focused on the research questions presented in chapter one. The overall purpose to assess members' attitudes and perceptions toward the role of the

centre in their activity lives and lifestyles was addressed by answering the specific subproblems. To begin with, the first three subproblems concerning the role of the Fitness Centre in the participants' lives, by age and membership duration were discussed. Following this an overview of the effects of the Fitness Centre on the lifestyles' of the members were presented. Furthermore, the achievement of the Fitness Centre objectives were addressed. Finally, a brief description of activities undertaken at the centre were provided.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

GENERAL SUMMARY

The purpose of this study was to assess the attitudes and perceptions of members of a work-site employee fitness centre toward the role of that centre in their activity lives. Subjects consisted of 479 members of the Esso Plaza Fitness Centre who were enrolled in the employee fitness program at the time of this study.

A self-administered questionnaire was designed specifically for this study and data was collected in the following areas: demographic information of respondents; attitudes concerning the themes of enjoyment, social support, health/fitness, knowledge, and psychological factors; information regarding the Fitness Centre's impact on members' lifestyles; the activities in which members engaged; and feedback on specific programs offered at the Fitness Centre.

Several statistical analyses were performed which yielded descriptive information such as frequencies and proportions. Further analyses investigated the relationship between response patterns and the respondents' age and membership duration. The results reported were related to

the overall purpose of assessing the attitudes and perceptions of members of an employee fitness program toward the role of the centre in their activity lives and lifestyles, as well as the specific research subproblems of this study. These subproblems included the following:

(1) To determine if there were differences in the needs, goals, and perceptions of adults of various age groups, with respect to exercise participation.

(2) To determine if there were differences in attitudes and perceptions with respect to the length of involvement (membership duration) in an employee fitness program, over longer time periods than reported in previous studies (i.e., more than 2 years);

(3) To determine if there were interaction effects between age and membership duration with respect to exercise motives, needs, patterns, and perceptions.

(4) To determine if the Fitness Centre objectives were being met according to the exercise outcomes cited by the program participants.

(5) To provide descriptive information concerning the nature of members' participation in employee fitness programs.

CONCLUSIONS

The following conclusions are based on the results obtained from the study and pertain to the research objectives:

(1) Overall, it was demonstrated that the Fitness Centre plays an important role in the activity patterns of the members involved. Members strongly supported this positive role and would adjust their schedule to attend to their activities at the centre, stating that exercising at the centre was an important part of their regular routine.

(2) Responses regarding the effect of the Fitness Centre on the impact of lifestyles were also very positive. Again, members felt that the Fitness Centre enhanced their feelings of self-control as well as decreased their feelings of depression. They reported "feeling good" through centre related activities and perceived their life to be much richer as a result of their involvement with the centre.

(3) When considering age, only one main effect was found. Overall, the results did not support the notion that members of different ages vary in their perceptions and attitudes about the Fitness Centre. It appears that for those who were involved, age did not systematically shape their perceptions differently.

(4) The study did, however, reveal some significant differences in members' perceptions and attitudes about the centre according to membership duration. Specifically, attitudes and perceptions about exercising at the centre were different based on members' length of involvement in the centre's activities. This finding was significant for the following statements: the contribution of the centre's fun atmosphere, the social aspect of meeting with others at the centre, the achievement of improved physical fitness, enhancing belief in the positive value of exercise, and knowledge improvement regarding several aspects of fitness and exercise. In essence, members' perceptions and attitudes tended to be more positive as the duration of their involvement increased. This was evident even beyond the period of 2 years and up to 10 years.

(5) The results of this study revealed some interaction effects between age and membership duration. These were evident with respect to the following items.

Among those participating in the centre for a long duration (71+ months), the middle age categories (30-39 and 40-49 year olds) tended to view exercise as a form of stress release more so than did the younger and older age groups of that category. This may be due to the combination of family and career pressures encountered by people during these two decades.

Also, with increased duration, members felt healthier as a result of using the centre. The greatest change in perceptions occurred with the oldest age groups (40-49 and 50+). This could have been a reflection of health concerns being more important to older participants.

Furthermore, over time, members generally perceived the programs at the centre as having a positive effect on their physical fitness and as providing the opportunity to achieve fitness goals. However, there were differences in perceptions between the various age and membership duration categories.

Finally, it was revealed that the longer members were involved with the program, the more they looked forward to exercising at the centre. However, the change in perceptions was stronger for the oldest age group, possibly

as a result of initial resistance to the notion of exercising, which changed positively over time.

(6) According to the exercise outcomes cited by participants, it was apparent that the Fitness Centre objectives were being met. The Fitness Centre had been instrumental in providing physical fitness and lifestyle programs which were appropriate to the needs of the centre participants. As well, these programs were successful in: promoting good health and low risk lifestyle patterns; providing enjoyment; offering the opportunity to improve/maintain physical fitness; providing friendly, supportive, and professional staff who encouraged the members to adopt more active personal lifestyles; and supplying fitness and lifestyle related educational opportunities for members. The educational component provided by Esso through its work-site Fitness Centre was very well received by the employees participating in the centre's activities. To this end, compulsory fitness assessments were perceived as beneficial and educational by members of the Fitness Centre. A reason for this success could be attributed to the fact that, overall, the type of programs offered through employee fitness centres are fairly controlled, and provide a degree of extra attention which is beneficial to the members.

(7) The convenient location, hours of operation, and low costs of the Fitness Centre were considered important by respondents. It is apparent that work-site fitness programs which are subsidized by companies provide an excellent opportunity for employees to schedule their exercise sessions into the work day. From the Fitness Centre usage patterns reported, it is evident that participants have taken full advantage of the centre's activities. Therefore, participants' positive responses concerning the Fitness Centre are not only representative of their attitudes and perceptions, but also a strong reflection of their actual exercise behaviors. However, it was interesting to note that, while the general perceptions concerning the Fitness Centre were positive, there was little indication that respondents credited the company for offering this opportunity to the employee.

RECOMMENDATIONS

(1) The need exists to further study the long-term membership duration of time periods longer than 2 years. It appears that the attitudes and perceptions of members continue to be dynamic throughout involvement, even up to the 10 year point. Therefore, it cannot be assumed that the motivation structure for program participation remains unchanged after several years of involvement. As more

people partake in the "fitness" movement, the number of individuals involved in long-term membership duration will also increase, thus providing more opportunities for further studies.

(2) Since the subjects involved in this study were already members of the Fitness Centre and relatively homogeneous with respect to their responses, it would be interesting to assess all employees' perceptions about exercise, and compare members' responses with non-members' responses. Given the overall positive nature of the responses of participants, it could be suggested that the Fitness Centre has attracted people who were already interested in, or involved in, exercise. With regard to this notion, it would be interesting to determine whether or not these type of exercise programs, in fact, only attract already physically active individuals. Furthermore, it would be beneficial to determine if there are specific features of an employee fitness program which would attract more of those people who are non-exercisers.

(3) Since the atmosphere of the centre was so important to the long-term members, further research should look specifically at these type of settings, and determine exactly what factors help constitute a more enjoyable and effective atmosphere conducive to exercise adherence.

(4) It would also appear that staff of employee fitness centres play an important role in the exercise experiences of clients. For future research, it would be interesting to study more closely the effects that various staff behaviors have on motivating participants to maintain their exercise programs.

(5) The use of exercising at the fitness centre as a tool for relieving stress appears to be important for the middle age groups (30-49 year olds). Corporations with many employees in these age categories should encourage them to partake in an exercise program as one form of potential stress release. A line of research addressing the impact of employee fitness programs on stress would be beneficial. Do these employees actually feel they are under more stress than younger or older groups and what are the sources of stress? How does exercise alleviate that stress and for how long?

(6) It would also be of value to examine if the effects of employee fitness programs differ with respect to gender. Do men and women value the same outcomes or have the same perceptions and goals with respect to fitness?

SUMMARY

The amount of research focusing on employee fitness programs is increasing as more corporations embrace the concept of wellness and fitness programs for their employees. As mentioned in the review of literature (Conrad, 1988), benefits of these programs have primarily been assessed from the corporation's point of view. This study, however, tapped the participants for their perceptions and demonstrated the positive effects of an employee fitness program. It would therefore appear that work-site fitness programs are highly valued by participating employees and consequently, are an excellent investment for both the employee and the corporation.

However, in order to better understand the full nature of the interaction of employees within a work-site exercise program, further research is needed. This is especially relevant as such programs have now existed for a number of years and still do not successfully involve even half of the potential employees. A key will be to further determine why an opportunity which is so highly valued by many is not adopted by so many more.

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APPENDIX A

1988 ESSO PLAZA FITNESS CENTRE
MEMBER SURVEY

1988 ESSO PLAZA FITNESS CENTRE
MEMBER SURVEY

1. Age: 18 - 29 ____ 30 - 39 ____ 40 - 49 ____ 50+ ____

2. Gender: Female ____ Male ____

3. How long have you been a member? ____ Years ____ Months

4. Do you prefer to exercise:

   a) Individually ____
   b) With a regular partner ____
   c) In a group class ____
   d) More than one of the above ____

5. What does your exercise program focus upon (you may check more than one)?

   a) Aerobic activity (cardiorespiratory--i.e. running, classes, cycling) ____
   b) Weight training ____
   c) Flexibility (stretching) ____
   d) Other ____

6. What equipment do you use on a regular basis in the Esso Plaza Fitness Centre?

   Stationary Bikes ____
   Air Dyne Bikes ____
   Nordic Tracks ____
   Rowing Machines ____
   Jogging Track ____
   Skipping Ropes ____
   Treadmill ____
   Global Machines ____
   Nautilus Machine ____
   Hydra Gym Machine ____
   Free Weights (Dumbbells/Barbells) ____
   Stretching Charts ____

7. Have the consultant assisted you in achieving your fitness goals?

   Yes ____ No ____

   If <u>NO</u>, how could you be better assisted? _____

   _____

   _____

8. Are you satisfied with the amount of attention and supervision you receive during your workouts?
   Yes ____ No ____

9. Did you know that members of the Fitness Centre are eligible for an annual fitness assessment?

   Yes ____ No ____

10. Have you participated in a fitness assessment at the Fitness Centre in the last year?

    Yes ____ No ____

    If NO, when was your last assessment? _____

11. Did you receive a fitness assessment invitation package in the mail during the past year?

    Yes ____ No ____

12. Did you know that spouses of members can join the Fitness Centre?

    Yes ____ No ____

13. In what way might you change the way the Fitness Centre functions?

    _____

    _____

14. a) Are there enough exercise classes (i.e. Aerobics, Super Circuit) to fit into your workout schedule?
    Yes ____ No ____

    i) If yes, are the number of class participants appropriate?
    Yes ____ No ____

    ii) If NO, what other time would you prefer _____

    b) Which class format do you prefer?

Action Aerobics (High Impact) ____	Calorie Burner ____
Lively Low Impact ____	Fit @ Forty ____
Self-Paced Low Impact ____	Happy Hour ____
Fit and Flex ____	Refresher ____
Aerobic Wake-Up ____	Super Circuit ____
Cross Training ____	Stair Climbing ____
	Other ____

    c) What length of class do you prefer?
    30 min.___ 40-45 min.___ 60 min.___ Other ___

15. Would you be interested in any special clinics or workshops?
Yes ____ No ____

If YES, please indicate which of the following interest you?

Cross Training ____
Running Clinic(Marathons, 10KM, Interval Training) ____
Pre/Post Natal (classes and/or lectures) ____
Weight (Fat) Loss/Control ____
Weight (Strength) Training ____
Mountain Rock Climbing ____
Hiking ____
Other _____

16. a) What feature(s) do you like or make use of in the Fitness Centre?

Clothing ____
Exercise Equipment ____
Shower/Change Rooms ____
View from Bikes ____
Temperature ____
Hours of Operation ____

b) What feature(s)/ program(s)/ do you like or make use of:

Special Programs (i.e. Fitweek, Relay Races, Nutrition Month) ____
Fitness Consultants ____
Attendance Awards Program ____
Class Instructors ____
Educational/ Informational Displays (Bulletin Boards, Newsletters, Bike Rack Posting) ____
Fitness Assessments/ Consultations ____
Other _____

APPENDIX B

QUESTIONNAIRE

****PLEASE COMPLETE CENTRE CODE NUMBER**** ___ ___ ___ ___

THE FITNESS CENTRE AND YOU

The following statements may or may not describe your feelings about exercising at the ESSO Fitness Centre. Please circle the appropriate response which best indicates your perceptions of the role of the fitness centre upon your exercise involvement. There are no right or wrong answers. Do not spend too much time on any one item.

STRONGLY-AGREE		UNCERTAIN		STRONGLY-DISAGREE
SA		U		SD
	AGREE		DISAGREE	
	A		D	

---

1. Exercising at the centre makes me feel good about myself.

SA A U D SD

2. An important part of my centre exercise program involves meeting others.

SA A U D SD

3. I do not enjoy the exercise that I do at the centre.

SA A U D SD

4. My co-workers do not support my participation in the fitness programs at the centre.

SA A U D SD

5. I exercise at the centre to prevent health problems.

SA A U D SD

6. I am more likely to get depressed if I miss my exercise sessions at the centre.

SA A U D SD

7. The fitness centre has increased my belief in the positive value of exercise.

SA A U D SD

STRONGLY-AGREE SA | UNCERTAIN U | STRONGLY-DISAGREE SD

AGREE A | DISAGREE D

---

8. The atmosphere at the centre makes it fun to exercise.

SA A U D SD

9. I find exercising at the fitness centre does very little to relieve my stress.

SA A U D SD

10. Those who are important to me think my involvement in the centre is a waste of time.

SA A U D SD

11. The program at the centre has given me a realistic chance to achieve my fitness goals.

SA A U D SD

12. It is difficult to learn more about fitness through the centre.

SA A U D SD

13. I do not look forward to exercising at the centre.

SA A U D SD

14. My life is so much richer as a result of being able to exercise at the centre.

SA A U D SD

15. I have improved my ability to understand fitness since I have been involved at the centre.

SA A U D SD

16. Weight control is not an important goal in my program at the centre.

SA A U D SD

STRONGLY-AGREE SA | UNCERTAIN U | STRONGLY-DISAGREE SD

AGREE A | DISAGREE D

---

17. Exercising at the centre is a high point of my day or week.

SA A U D SD

18. The fitness centre staff are largely responsible for why I like to exercise at the centre.

SA A U D SD

19. My participation at the centre has not improved my practical knowledge about exercising safely.

SA A U D SD

20. Exercising at the centre has allowed me more control in my life.

SA A U D SD

21. The centre and it's programs have had only small effects on my general physical fitness.

SA A U D SD

22. Exercising at the centre is an enjoyable experience.

SA A U D SD

23. Fitness tests provide an excellent opportunity to learn more about fitness.

SA A U D SD

24. I feel much healthier as a result of my using the centre.

SA A U D SD

25. Exercising at the centre increases my sense of being valued by the company.

SA A U D SD

PART 2

1. Gender: ___male ___female

2. Age: ___ 18-29 ___30-39 ___40-49 ___50+

3. Please indicate (circle) your employment type:

   regular contract student retired spouse

4. How long have you been a member? ___ Years ___ Months

5. The following are reasons given for exercising at the centre. For EACH reason indicate how important a factor it is to you personally in exercising at the ESSO centre.

   1=Highly Important 3=Minimally Important
   2=Somewhat Important 4=Not Important

   ___Weight Loss ___Quality Group Classes

   ___Social Aspects ___Inexpensive

   ___To Feel Better ___Convenient Location

   ___For Enjoyment ___The Exercise Equipment

   ___Health Concerns ___Hours of Operation

   ___For Physical Fitness ___Incentive Programs

   ___Stress Release ___Friendly Staff

   ___Sense of Accomplishment

   Please specify any others:_____

6. ON THE AVERAGE how often do you use the fitness centre?

   a) 1 time per week
   b) 2 times per week
   c) 3 times per week
   d) 4 or more times per week

7. For EACH of the following, indicate how many TIMES PER WEEK ON AVERAGE you would participate in the activity, at the fitness centre?

___Running ___Weight Training ___Group Classes

___Flexibility ___Aerobic Equipment (ie. bike, rower)

Other (please specify):_____ times/week:____

8. With whom do you exercise?
Number the choices with 1=Most Often to 3=Least Often.

___with a partner ___individually ___in a group

9. The following questions relate your centre participation to your lifestyle. Please CIRCLE the most appropriate response.

a) Exercise would be a regular part of your lifestyle even without the ESSO fitness centre.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

b) To miss an exercise session at the centre is sheer relief.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

c) Exercising at the ESSO fitness centre is an important part of your regular routine.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

d) You would arrange or change your schedule to exercise at the ESSO fitness centre.

Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

10. To what degree do you feel the fitness centre has had an impact on your lifestyle? (please circle)

Major Impact	Substantial Impact	Moderate Impact	Minor Impact	No Impact

11. Do you feel that the staff have assisted you with achieving your fitness goals?

    Yes___ No___ Comments:_____

    _____

12. Please CIRCLE the appropriate responses regarding your feelings and opinions about fitness assessments.

    a) I like the idea that fitness assessments are compulsory for joining the centre.

    Strongly Agree Agree Uncertain Disagree Strongly Disagree

    b) I find that fitness assessments provide me with the necessary information for helping to set my personal fitness goals.

    Strongly Agree Agree Uncertain Disagree Strongly Disagree

    c) One of the main reasons I am a member of the ESSO fitness centre is so that I can get a regular fitness assessment.

    Strongly Agree Agree Uncertain Disagree Strongly Disagree

13. Describe your activity involvement AWAY from the ESSO fitness centre:

Type of Activity	Number of times per week	Number of months per year
A.		
B.		
C.		
D.		

If randomly selected, would you be willing to provide a short in person interview concerning this project?

YES NO (please circle one)

Thank you very much for your time and input...ANITA

APPENDIX C

COVER LETTER

University of Alberta
Edmonton
Canada T6G 2H9

Department of
Physical Education and Sport Studies
P-421 Universiade Pavilion
Van Vliet Physical Education and Recreation Centre

Dear Member:

This project is a joint research project which involves the University of Alberta and the Esso Fitness Centre. Your involvement will contribute to the ability of the centre in meeting your needs, and in generating knowledge in this field of research. Esso has been most cooperative in granting permission to have this questionnaire circulated.

Part 1 asks you to respond to statements concerning your involvement with the Esso Fitness Centre. Please be as accurate and honest as possible when responding to these items. Part 2 covers aspects of the specific programs offered at the Esso Fitness Centre. This information will be important for program assessment and in providing information about your centre participation.

By providing your frank responses, you will be making a significant contribution to the effective operation of not only your centre at ESSO, but also to other fitness centres. The complete questionnaire will take 10 to 15 minutes to fill out.

Should you decide to assist with this research project: Participation at the Esso Plaza Fitness Centre: An Assessment, please read the following and provide your signature.

This study concerns the gathering of information concerning participation in, and feelings about the ESSO PLAZA FITNESS CENTRE programs. The information will be used to assess the use of this centre and contribute to knowledge about corporate fitness programs in general.

I recognize that my centre code number is required in order that my length of membership and other such details can be confirmed with the centre records. I also understand that my individual responses are considered confidential and will only be used in conjunction with those of others. Also at no time will my name be attached to responses.

Finally I recognize that I may ask questions concerning the study and may withdraw at any time without any consequences to myself.

By returning this completed questionnaire I am confirming my recognition of the above principles and providing consent to utilize the information I provide.

Signature:_____ Date:_____

PLEASE DO NOT REMOVE THIS SHEET

If you have any questions regarding this project please call Neil Spears at 237-4600 or Anita Watts at 441-4713. **Please return to room 0432 EPW.**

Thank you for your assistance and cooperation in the success of this project.

Sincerly,
Anita Watts

Anita Watts

APPENDIX D

FOLLOW-UP LETTER

University of Alberta
Edmonton

Canada T6G 2H9

Department of
Physical Education and Sport Studies

P-421 Universiade Pavilion
Van Vliet Physical Education and Recreation Centre

Dear Member:

In the middle of May you received a questionnaire from the University of Alberta with regards to a research project in conjunction with your fitness centre at Esso. To date some 300 responses out of a potential 900 have been received. In order to increase the meaningfulness and response rate of this project, I ask that you please take the time to fill out the enclosed questionnaire and send it to the fitness centre as soon as possible.

For a better representation of responses, it is very important to this project and your fitness centre that we have your input to this questionnaire. If you have already completed and sent the questionnaire please disregard this reminder.

In the interest of saving paper, please return extra questionnaires to room 432 EPW so that they may be used in the future.

Thank you for your time and input to this project.

Sincerely,

Anita Watts